The Cornell Countryman



DECEMBER

1925

Volume XXIII

all of ild

sts its

Number 3



How much should a woman lift?



This trademark is a symbol of quality which you will find on little motors that pump water orrun household machinery, and on the big motors that irrigate vast farm sections and turn the wheels of American industries.

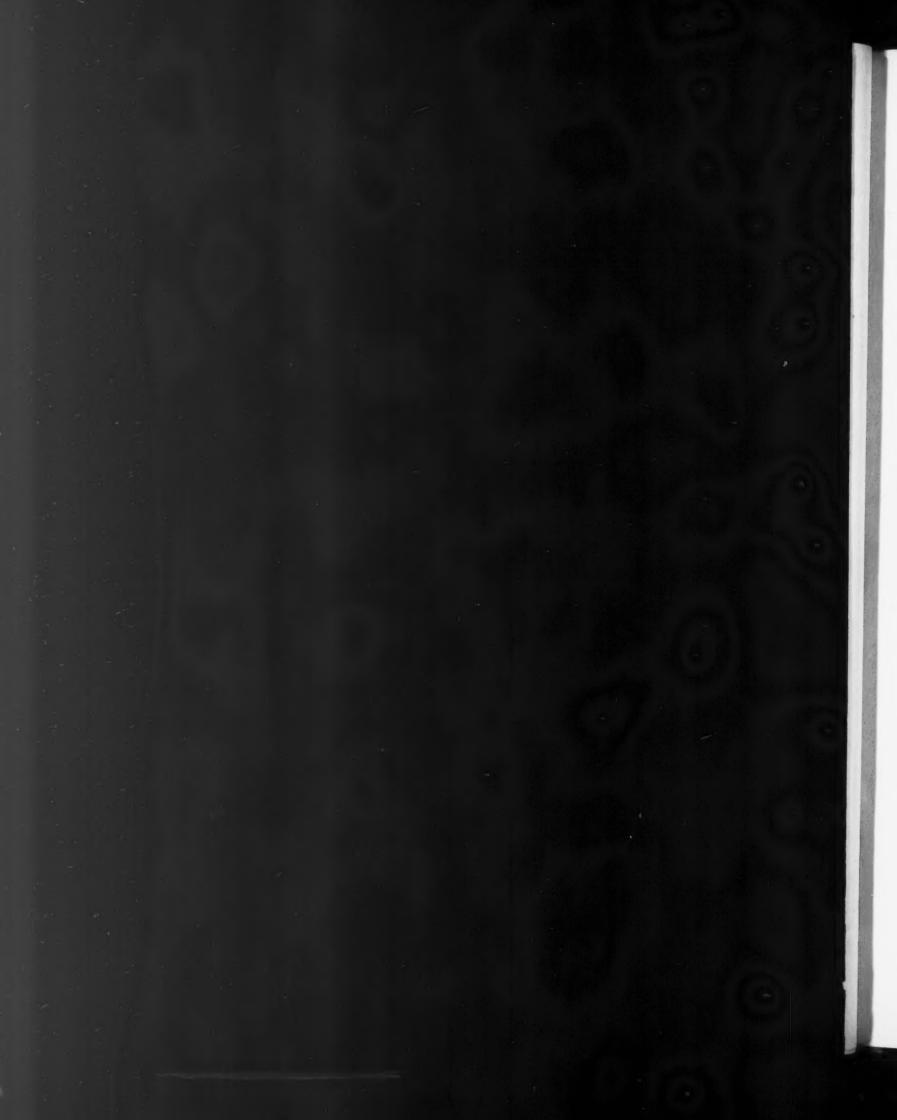
"A pint is a pound the world around," and the woman who carries from the well to the house the water needed for the average farm family lifts several hundred pounds a day.

A pump driven by a G-E motor will do this job for a few cents a week, where electric service is available.

Farm surveys in a number of states show that the most used electric conveniences are those that make woman's work easier.

GENERAL ELECTRIC





The MECHANICAL POWER AGE

is only beginning on the Farm. The Agricultural Student will ride along with it, controlling the farm machines and power of To-morrow

VEN the airplane is now being experimented with to aid agriculture. Out west, the orange groves have been sprayed by the airplane. Down south, an airplane has successfully done the work of many ground dusting machines in applying arsenate to kill the boll weevil

These are extreme signs of the times. They are not everyday farming methods, but they serve to remind us of the tremendous changes that are coming about in agriculture and that affect the prosperity of every man on his farm.

The mechanical power age is here. The owners of close to a million farms are letting brains and power farming equipment take over the work of hired hands, horses, and limited horse-drawn tools. They are seeing to it that one man doubles and triples his day's work. As a result, according to the Department of Agriculture, there were 109,000 fewer hired men on the farms in 1925 than in 1924. Millions are saved to the farmers in wages; yet production is greater than ever before. Producing costs are reduced and extra profits are the reward of farmers who have become power farmers.

McCormick-Deering machines seek always to be ahead of the times. It is the work of International Harvester inventors and engineers, trained in the field and helped by the experience of 94 years of farm equipment progress, to equip the farmer with timeand-labor-saving, yield-increasing, money-making farm machines.

To-day the McCormick-Deering dealers are providing the farmer with 2 and 3-furrow plows, 2-row cultivators, 10-foot binders, harvester-threshers to cut and thresh at one operation, pickers to pick and husk the standing corn, big-scale hay-harvesting tools, and a long list of other efficient machines bearing the old dependable name, "McCormick-Deering."

These wonderful machines are made for tractor power. McCormick-Deering tractors have opened the way to great developments in modern farming. They are not only perfected for drawbar and belt work but they have shown the way to power

take-off operation by which the tractor engine runs the mechanism of field machines, relieving the bull wheel of its heavy load, doing away with slipping and clogging, and increasing efficiency. McCormick-Deering machines and power make the combination for profit. Together they will lead the way to prosperity, now and in the future.

INTERNATIONAL HARVESTER COMPANY of America (Incorporated)



PROFITABLE FARMING STARTS AT THE STORE OF THE McCORMICK-DEERING DEALER

BOOKS AS CHRISTMAS PRESENTS

Books remain interesting long after Christmas if the books are carefully selected. Buy the books which will be read more than once. This does not mean "high brow" or expensive books. Thousands are reading Conrad's books and books of that class. Investigate the possibilities and ask advice if necessary.

Cornell Co-op. Society

Barnes Hall

Ithaca, N. Y.

FUL-O-PEP EGG MASH

Containing the New Vital Element-COD LIVER MEAL



Means:

- 1. More eggs through the year, and at the seasons when they bring the highest prices.
- Better average of large eggs. Minimized loss from undersized eggs.
- 3. Stronger shells. Less loss from breakage.
- 4. Healthy flocks. High resistance to roup, white diarrhea, chicken pox and tuberculosis.
- 5. Low mortality of both grown birds and chicks.
- 6. More hatchable egg, larger hatches.
- 7. Strong, vigorous chicks that live and grow.
- 8. Better sale of eggs because of high food value.

Our new Ful-O-Pep Poultry Book just off the press tells all about this new vital element in Ful-O-Pep Egg Mash. Send for it, it's free.

The Quaker Oals Company

Address: Chicago, U.S.A.

Cornell Countryman.

Iowa Agriculturist ... Penn State Farmer. Ithaca, N. Y.



Contents and Contributors

December, 1925

How Bees Behave in Winter 81	A Botanists' Expedition to Newfoundland 8
By E. F. Phillips, professor of entomology. Do you know that your bees have their own heating plant to keep them warm in winter, and that the humming noise which you hear coming from the hives is an indication that the plant is in operation? Professor Phillips, who is an authority on bees, explains how they do it.	By K. M. Wiegand, professor of botany. Last sum mer, Dr. Wiegand made his third trip to Newfound land with a group of scientists engaged in botanizin that region. He tells some of his impressions of th island and the life of its people, about whom the average American knows little.
Measuring the Demand for Milk in New York City 84	Editorials
By H. A. Ross, assistant professor of agricultural economics and farm management. In this article Professor Ross shows how the demand for milk in	Former Student Notes
New York fluctuates, and tells why it changes from day to day and from season to season.	The Campus Countryman
Member of the Agricultural	College Magazines, Associated



Winter Near Lake Placid

The Cornell Countryman

A Journal of Country Life - Plant, Animal, Human

Volume XXIII

DECEMBER, 1925

Number 3

How Bees Behave in Winter

By E. F. Phillips

INSECTS other than the honeybee which live through our New York winters as adults go into hibernation with the oncoming of cold weather. Other species of insects spend the cold winters as eggs, larvae, or pupae, and complete their development when warm weather comes again. Of the insects which are common in the state, the honeybee is the

only one which lives an active a dult life throughout the winter, and this is what makes the winter problem so serious for the beekeeper.

The story of how bees behave during the period of cold weather is so marvelous as to be of interest to others than beekeepers. It is possible but somewhat difficult to conceive of bees migrating as a colony to

warmer climates when cold weather comes on. The honeybee does not do this, but it is an interesting fact that the nearest relatives of our common honeybee, the giant bees of India and the Philippines, do migrate to the coast with the advent of the dry season, sometimes flying for a hundred miles as a vast swarm. Fortunately New York state honeybees do not thus fly away to escape the adversity of cold weather, for they might forget their old home the following spring and beekeeping as an industry would be impossible. Being devoid of the instinct to migrate and being unable to hibernate, there seems but one way out for bees, namely, to store food capable of the production of large amounts of heat and to gener-

ate heat throughout winter to keep the temperature of the hive within livable limits.

WHEN the temperature drops to 57° Fahrenheit, the bees, which have previously been scattered about the hive, mass themselves together into what the beekeeper calls the winter cluster. This critical temperature

Colonies of bees snugly packed for winter

is not especially low, yet it is the lowest temperature at which bees can perform their individual labor, and at lower temperature they must have the cooperation of their hive mates to keep warm. This cluster is formed on cells of the honeycomb which contain no honey, and each cell within the limits of the cluster is found to contain one motionless and apparently sleeping bee. Between the combs are other bees, which are the ones on which the cluster depends for the maintenance of heat in proper amounts for muscular activity.

The bees between combs are not all engaged on the same task. An examination of such a cluster without disturbance is not easy, yet ways have been devised for watching the bees

without breaking or disturbing their cluster. From such observations it is seen that the bees between combs are not uniformly arranged and apparently they are arranged for the performance of separate functions.

THE outer rim of any one of the circles of bees between combs are all placed with their heads toward the

inner part of the cluster, and when we look at a winter cluster from below or above we see no heads, but only tails of bees extending into the cold. Here the hees are arranged in numerous ranks, close together, evidently for a purpose. In t h e innermost parts of each circle the bees do not have this uniform arrangement, but when the temperature falls to about

fifty degrees or lower we see individual bees going through all manner of contortions. Some move their abdomens from side to side, others move their legs almost constantly, and finally, if we watch carefully, we see bees fanning their wings rapidly for considerable periods. Beekeepers have long known that there is a humming noise emanating from bee-hives during cold weather, yet when the announcement was made some time ago that bees actually fan their wings within the winter cluster to keep warm, there were many who found this difficult to believe.

These two sets of bees have different functions, equally important to the maintenance of the colony. The excessive muscular activity of those

Dec

with

gin i

outer

Fahr

that

gene

fortl

imm

in a

wou

and

com

broo

of (

colo

nac

kno

par I

pla

per

the

WI

to

ter

wh

qu

su

within the circle is the source of the heat of the cluster, as can be determined by placing a delicate thermometer beside the fanning or otherwise moving bees, when the temperature is immediately seen to rise. Muscular activity is a source of heat production to all animals, as we know from our own experience in winter.

THE outer ranks of bees also have an important function in the maintenance of proper temperatures, for it is their task to prevent the escape of the heat generated at such cost by their hive mates farther toward the

center of the circle. The body of the bee is covered with finely branched hairs, and when the bees stand close together these hairs interlace, forming innumerable small dead air spaces, long known to be valuable for insulating purposes. The smaller and the more numerous these dead air spaces, the better is any insulating material, a n d bees produce these small air cavities in this

numbers. Furthermore the bodies of the individual bees are completely penetrated by myriads of small air tubes, through which respiration takes place, and these are equally valuable as insulators when bees are placed in the manner indicated. That they are actually able to insulate their cluster to a remarkable degree is shown by the fact that a difference of 75° Fahrenheit has been found to occur between two points within a hive four and one-quarter inches apart, with nothing intervening but the bodies of living bees. There are few materials which have such remarkable insulating value.

THE ultimate source of the cluster heat is, of course, their food, honey. Honey consists essentially of supersaturated solution of three sugars, all of which are heat producing foods. During winter bees live almost exclusively on honey and from this food through muscular activity they keep up the temperature.

It must not be assumed that the temperature of the inside of the cluster is constant after heat production once gets under way, for this is not the case. As the temperature falls below the critical temperature, 57° Fahrenheit, a few bees begin muscular activity and the inner temperature is somewhat raised. As the outer temperature, that is, the temperature of the air immediately surrounding the bees, falls still lower, other bees begin heat production through muscular activity, and the temperature tends correspondingly to rise. In extreme cases there is a

at such cost by temperature tends correspondingly above them, they of their slow wint to rise. In extreme cases there is a solution of their slow wint to rise. In extreme cases there is a solution of their slow wint to rise.

The outer temperature and the temperature of the center of a winter cluster of bees. The outer temperature is represented by the heavy lower line. Clustering occurred just after six o'clock on November 14. The short lines show temperatures on the edge of the cluster during its formation

severe draft on bees of the cluster for heat production and the insulating band on the margin must be correspondingly reduced, which causes the bees to work at a marked disadvantage. In general, the lower the temperature of the air immediately surrounding the cluster, the higher the temperature of the center of the cluster, but the bees never allow the inner temperature to rise above about 94° Fahrenheit, and if too much heat is generated, they simply loosen the insulating ranks and permit heated air to escape. When the outer temperature again rises to 57° or higher, the cluster is entirely abandoned, to be formed again when the temperature of the air surrounding them falls. Above the critical temperature the bees may either sit quietly about the hive, or if the weather outside is favorable for flights, they may fly from the hive until darkness comes on or until the weather again becomes chilly. Heat production and consequent tempera-

tures within the cluster are constantly changing to meet the demands of the cluster.

IN EATING the honey which lies immediately adjacent to the cluster, the bees find it necessary for the whole cluster gradually to move, so that it may stay in contact with the food supply. Usually the movement of the cluster is upward, at least as long as honey remains above them, but if they reach the top of the hive and have used all the honey above them, they shift the direction of their slow winter movement, and

usually move toward the rear of the hive, if there is honey in that direction. If there is weather warm enough for the cluster to be broken, they may form it after the break at some entirely different part of the hive where there is honey available.

The accompanying diagram of hive temperature may seem formidable, yet it is merely a brief way of telling a story which would be exceedingly long if it

were all put into words. From the standpoint of the practical beekeeper, there is one part of this chart which is of vital importance, namely, the downward trend of the cluster temperature curve when the outer temperature is rising. This may be put in words as follows: bees work as long as muscular activity is essential, but cease such labor at the first opportunity. There is no non-essential muscular activity within the hive in winter, and in this way the bees conserve their strength so that they will be able to carry on the heavy work of rearing brood when spring comes.

THIS is not a discussion of wintering from the standpoint of beekeeping practice, yet there are certain essentials of wintering that should be quite clear from what has been given, and the record of cluster temperature is the basis on which all practical wintering of bees must rest. Suppose, for an extravagant example, that each hive were equipped

1925

tant

ds of

lies

clus.

for

nove,

with

nove-

d, at

bove f the

oney

ction

and

e to

r of

here

that

. If

ther

for

o be

may

the

en-

rent

hive

is

ole.

om-

ram

era-

eem

yet a

tell-

nich

ed-

it

the

oer, nich the emput as ial, opcial in onvill ork es.

as

with a small furnace which would begin to give off heat as soon as the outer temperature fell below 57° Fahrenheit. In this case we know that the bees would not begin heat generation, for this activity is called forth by the temperatures of the air immediately surrounding them. Bees in a hive with such a small furnace would have an easy time in winter, and they would have their vitality so completely conserved that they would be capable of vast labors in spring brood-rearing and in the gathering of early nectar and pollen. Such a colony in a properly arranged furnace-heated hive would do great things the following spring, as we know from having tried certain comparable experiments.

But the beekeeper is unable to place such a furnace in each hive. both from inability to stand the expense of such equipment and from the standpoint of the nuisance involved from such labors on his part. What is the next best thing for him to do? Merely to place insulating material about the entire hive so that whatever heat is generated by the bees shall not quickly be lost, thus requiring far more heat production on their part. The beekeeper places insulation about a single hive or about a group of two, four, or more hives when he winters his bees outdoors, or he may place his entire apiary in a well constructed cellar, which is equivalent to placing insulation about the whole apiary at one operation, for heat is lost less rapidly from the hives in a good bee cellar than in unprotected hives outdoors.

A QUESTION of enormous practical importance has also been answered in the story of bee activity in winter. The beekeeper wants to place about his hives the right amount of insulation, and naturally asks how he may determine this amount. It has already been stated that when the temperature of the air immediately about the bees rises, they decrease or cease their heat production. It has also been stated that if the temperature rises to a point higher than 94° they loosen or break the cluster. These facts, when translated into beekeeping practice, mean that it is entirely impossible to place too much insulation about a hive in winter. This is the theoretical reply to the beekeeper, yet it was thought that there might be a slip somewhere in the theory, as has been known to occur elsewhere at times, so it was decided to test an absurd amount of packing about a hive, to see what the bees would give as their answer to this question of the beekeeper. A hive was arranged with sixteen inches of saw dust on all sides, top and bottom, an amount of insulation which no one had ever dreamed of giving. A colony was placed in this insulated hive in fall and its temperature and other activities watched throughout the winter. These bees formed no cluster until long after all the other bees of the apiary were busily engaged in heat production. Finally colder weather came and they did form a cluster for a time and generated heat, but the hive was so well insulated that the heat escaped with extreme slowness, and the hive tem-

perature quickly rose. This allowed the bees to break cluster, which they did, forming it definitely again only a few times during the entire winter, when there were cold waves of some magnitude. The bees sat about most of the time doing nothing, so far as the human observer could detect.

THE final answer came the following spring. The question might be asked whether this lazy life in winter had reduced their vigor, but in the spring these bees started their brood rearing with vim, and produced a great colony of bees for the harvest. There seems from this single experiment, as well as from the experience of beekeepers everywhere, with their numerous experiences, no danger from over-insulating bees in winter, which ought to be a great comfort to the practical beekeeper who wishes to be on the safe side.

An organization of insects which can carry on such activities throughout winter is certainly marvelous, capable of commanding our admiration and respect. They may not realize as man would the magnitude of their task, so they are never discouraged, and keep at heat production until they come successfully through the winter or until they die from wearing themselves out, as so frequently happens in poorly managed apiaries. When bees do die in winter from overwork, the beekeeper usually finds an excuse for their death, but naturally these excuses never include his own neglect, for beekeepers are human, if bees are



Measuring the Demand for Milk in New York City

By H. A. Ross

ILK marketing, from the producers' standpoint, no longer ends with the delivery of the milk to the country plant. Dairymen now want to know what happens to their product from the time it leaves the farm until the bottle of milk is delivered at the consumer's door. In fact, in order to find out the age, race, and economic status of the consumers, Philadelphia, Boston, and one or two other cities have made surveys tracing the milk down the throats of the children. What happens to it thereafter, the producers have left to doctors and nutrition experts.

This interest in milk marketing is not due to idle curiosity nor, to any

great extent, to the desire of producers to enter the milk distribbusiness. uting It comes about through the growing knowledge that dairymen will produce plenty of milk for our cities if the price is high enough. The chief difficulty is to sell at fluid prices all the milk we now produce. For this reason, more and

more attention is being paid to the factors which influence the demand for milk. Measurement of these factors will do three things. First, it will give a sound foundation on which to base advertising campaigns intended to increase the consumption of milk. Second, it will give much needed information on the demand side of the market in selling milk to the dealers. Third, since the probable sales of milk under varying conditions can be foretold, it will permit a decrease in the amount of surplus milk now held in the city as insurance against shortage, thus narrowing the margin between retail and producer prices.

WITHIN the last few years, milk dealers have recognized that producers and distributors have many problems in common, and the old spirit of antagonism between the two groups is being gradually broken

down as mutual problems are attacked co-operatively. An instance of this is a study of the demand for dairy products which is now being made in New York City. The survey has a strong agricultural background, since it is being carried on by the New York State College of Agriculture and the United States Department of Agriculture. In spite of this. the six largest milk dealers in New York freely opened their books and gave out sales data that would have been guarded with the utmost jealousy a few years ago. From the great mass of figures covering the purchases of over a million families, have been gleaned a number of per-

Grade A

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec

Seasonal Variation in Retail Sales of Quarts of Bottled Milk in Greater New York-Average for the year = 100 per cent

Certified

fer milk.

New York dairymen are fortunat in that they have a rapidly growing demand for their product. This longtime trend is the result of two factors: increasing per capita consumption and increasing city population. Since 1921, the average retail purchases of milk for a family have increased at the rate of about two per cent a year. The increase in per capita consumption for all milk shipped to New York, including that used for the manufacture of ice cream, is still greater, averaging about three per cent annually. Whether this per capita increase will continue, will depend largely on the buying power of city consumers and on the success of the various agencies which are attempting to persuade them that a larger proportion of their income should be spent for dairy products. One of these agencies, the

National Dairy Council, has done splendid work in increasing the consumption of milk in a number of cities, but it must be admitted that the marriage license bureau is probably more effective, since children are the principal consumers of milk. The New York City birth rate does not indicate any immediate shortage of children, so a constantly growing market for milk can be expected.

ALES of milk vary with the season because of two opposing factors which affect demand. As temperature rises in the summer, more and more milk is consumed, but hot weather drives many people to the

mountains and seashore, a n d large numbers of the best customers are lost during July and August. For instance, sales of quarts of Grade B bottled milk rise slowly from the low point in January until the last of June. At this time schools close and the exodus from the city begins. Despite the fact that the temper-

tinent facts concerning the demand ature continues to rise and the per capita consumption of those people remaining in the city is higher, the total sales fall off rapidly until the latter part of August. Schools reopen immediately following Labor Day, and families with children of school age return at that time. Sales continue to rise as others come back in September and October, but the weather is not as hot as in June, and sales do not reach so high a point. With the advent of cold weather, the demand diminishes to the end of the year.

A larger proportion of Grade A milk is consumed by children not of school age, and sales of this product differ from sales of Grade B, in that the vacation decrease begins a little earlier and lasts longer, because more of these consumers can ignore the closing and opening of school. Certified milk, which is very largely for baby consumption, shows this to a

ity

done

e con-

per of

d that

prob-

ildren

milk.

e does

ortage

owing

season

actors

npera-

t hot

to the

and

a n d

ers of

astom-

t dur-

a n d

or in-

es of

Grade

milk

from

int in

til the

e. At

chools

he ex-

the

De-

fact

mper-

e per

people

r. the

il the

ls re-

Labor

en of

Sales

back

it the

e. and

point.

r, the

of the

ide A

not of

roduct

n that

little

more

e the

Cer-

ly for

to a

ed.

still further degree. The vacation period for consumers of certified milk is longer than that for consumers of any other grade of milk.

RETAIL sales of heavy cream reach their peak about the first of June, when fresh berries are on the market, and before the vacation migration has begun. Sales at this time are over 40 per cent higher than they are in the low point during the latter part of August. With the return of vacationists, the sales of cream rise, but the berry season is past, and the high point in the autumn is still 17 per cent below the spring peak.

Buttermilk is a hot weather drink, the consumption being three times heav- 200 ier in summer than in winter. 180 Bulk milk for store and restaurant trade is also higher in summer than in winter, because this is consumed largely by adults, many of whom change from milk to tea or coffee when winter approaches.

In addition to these seasonal changes, the demand for milk fluctuates from day to day with changes in temperature, increas-

ing with a rise and decreasing with a fall. A sudden drop of fifteen or twenty degrees has a greater effect than a rise of an equal number of degrees. The effect on sales is least for those grades of milk which are consumed largely by children. Unfortunately, the production of milk in the country responds in an entirely different manner as temperature rises. A sudden hot spell invariably cuts the milk flow. When Henry Ford perfects his mechanical cow, he will undoubtedly have a thermostatic attachment which will automatically regulate the flow of synthetic milk, while the inefficient biological cow will continue to produce less milk at the time it is most needed.

40

20

THESE antiquated creatures insist on producing the same amount of milk on Sunday that they do on Mon-

day, even though city consumers preaccording to the day of the week. In much cream may be necessary to supply the Sunday demand.

The holiday demand is likewise va-

fer to vary their consumption of milk a business district the purchases of milk may fall off one-half on Sunday and one-fourth on Saturday. In a residential district, however, Sunday sales ordinarily go up from one to eight per cent, while three times as

riable. On the Fourth of July and Labor Day many people leave the city for a holiday, and the result is a decrease in the sales of milk. Passover

and other religious holidays may also 220 Quarts Pints Half Pints Half Pints Quarts Grade B Butter-Grade Heavy Light 160 Cream milk Cream Milk Milk 120 100 80 60

Day-of-the-Week Variation in Retail Sales of Milk and Cream in a Residential Section of New York City-Average for the week = 100 per cent

very significantly. On the other hand, Thanksgiving and Christmas festivities may demand two or three times the normal amount of cream.

Variations in demand, due to seasons, days of the week, and holidays, are quite regular, and sales of milk and cream can be predicted with a fair degree of accuracy some time in advance of the actual demand. In this way, the amount of milk sent to New York, and even the amount bottled, can be adjusted to the probable demand. The advantages are obvious. More surplus milk can be held back in the country, and the saving in freight alone would run into hundreds of thousands of dollars annually for a city like New York. In addition, the loss due to bottling and subsequent dumping of unsold milk,

which must go into lower grade products, is no small item.

Fluctuations in demand, due to temperature changes, can also be predicted with a considerable degree of accuracy, but only for very short periods, because of the uncertainty of the weather.

THIS demand study is throwing light on a much-argued question of price policy. For about nine years prior to 1916, the retail price of milk in New York was kept constant at nine cents a quart. Chicago, Philadelphia, and numerous other cities had similar uniform retail milk prices.

It was commonly believed that any increase in the retail price of milk would seriously cut consumption. To a certain extent m ilk dealers were correct in their belief regarding the fall in demand with a rise in milk prices, because when increasing costs of producing and distributing milk finally forced an advance in price, consumption did fall in most cit-This was ies. largely the result of the consuming public having become accustomed

decrease the consumption of milk to an unchanging milk price. Consumers were accustomed to fluctuations in prices of meat, butter, and eggs, and rises in the prices of these commodities did not arouse public disapproval as did advances in the hitherto unchanging prices of milk. beer, bread, and street car fares.

> N RECENT years, as prices have become more stabilized, a number of cities have reverted to the old price system. New York, however, does not hesitate to increase or decrease the retail price of milk as market conditions warrant. New Yorkers have also become accustomed to an advance in the retail price in the fall, and a cut in the spring. The effect on consumption is very much less than is commonly thought. The average net effect of

(Continued on page 97)

A Botanists' Expedition to Newfoundland

By K. M. Wiegand

N A hot Sunday afternoon early in July .ast, a party of botanists set sail from Boston harbor on the steamship "Northland" for a summer of exploration in the far north country, Newfoundland. Fifteen years before, the senior members of the expedition had spent two summers there and had then determined, if possible, to complete a botanical survey of the island. They were particularly interested in the work because this region had previously received scant attention from botanists, yet during these two summers had developed some of the most interesting problems in plant distribution to be found anywhere in eastern North America. Various things arose, however, to interfere with a return to the island, and with the exception of one or two short visits by one of the party, no further work was done until this summer, when, thanks to our University Heckscher research fund and the Milton fund of Harvard University, everything worked out favorably to make another summer's work pos-

The party consisted of Professor Fernald of Harvard University, Mr. Long of the Philadelphia Academy of Natural Science, Mr. Ludlow Griscom of the American Museum of Natural History, Professor Pease of Amherst, the writer, and two assistants.

EARLY Monday morning we disembarked at Yarmouth for an all-day journey by rail across the barrens of southwestern Nova Scotia, where a flora was seen that reminded us of the pine barrens of New Jersey and the sandy stretches on Long Island and Cape Cod. After spending the night at Halifax, we traveled all the next day through the more mountainous and wooded sections of eastern Nova Scotia, passing along the shores of the beautiful Bras D'Or Lakes, and finally reaching North Sydney in time to take the steamer Kyle for Port au Basque, the port of entry at the southwest corner of Newfoundland. Cabot Strait is about 70 miles wide at this point, and is often a very turbulent piece of water. But fortune favored us this time, and though the boat was fearfully overcrowded, the water was smooth and the passage comfortable.

Newfoundland is often a surprise

to the visitor who arr ves there for the first time. On the map of North America it appears as a small spot at the mouth of the St. Lawrence river, but it really is a country of considerable size, triangular in form, with sides approximately 300 miles long. In area it is nearly as large as New York state. Moreover, it is not a part of Canada, but is a separate British colony, with its own governor-general, currency, postage, and customs. It is, in fact, Great Britain's oldest colony.

EARLY in the morning, after our first view of the rugged rockbound and mountain-flanked coast, we disembarked to see our rather voluminous baggage through the customs, preparatory to a trip of 150 miles by rail to Curling, on the west coast, where the mail steamers leave for northern Newfoundland and Labrador. This railway is interesting, as it is a narrow gauge road running a distance of about 500 miles along the coast and across the center of the island to the only city, St. John's, at the southeastern corner. Passenger trains leave the terminals every other day. The train itself is quite pretentious with baggage car, first and second class coaches, sleeping car, and diner.

NEWFOUNDLAND is a picturesque country. Although the interior consists of an alternation of spruce and fir forests, with immense stretches of caribou barrens and many fine lakes, the coast is rugged and generally rock-bound, with here and there deep fiords, sometimes several miles in length, which penetrate between the hills and form excellent harbors for ships of the deepest draught. There are no high mountains on the island. A long tableland known as the "long range" extends about three-fourths the length of the west coast. It is about 2,000 feet high, flat-topped, with steep sides. The summit is very barren and often snow-capped until July.

Being an island, Newfoundland is not rich in kinds of animal life, but caribou and hares abound, and the black bear is not uncommon. Ptarmigan, locally called "partridges," are found on the highlands. Salmon and brook trout are abundant in the streams. The island, like Ireland, is free from snakes of all kinds and all

species of amphibia. However, it is not free from winged insects. Everywhere in the wooded districts the black fly makes its presence known, often in such numbers as to render expeditions into the interior in summer very difficult. This pest does not disappear early in July as it does in the Adirondacks, but keeps on the job throughout the summer until frost

Dec

lage

cau

lobs

Wh

who

olo

THOUGH the minimum temperature reached in the winter is no lower than that often experienced in central New York, the winters are long, extending from early November until late May, and the summers are short and cool, although there are each summer a few rather warm days. Daylight in summer is several hours longer than at Ithaca, and plants apparently pass through their growing season more quickly.

Climatic and possibly other conditions, as for instance, limited glacial till, have been such that agricultural soils have been produced in very small quantity. Much bare rock is found, and if covered, the soil is usually largely composed of peat. The combination of short cool growing season and inappropriate soil has prevented Newfoundland from becoming an agricultural country.

About the only New York state crop to be grown successfully on the island is the potato, though wheat is grown in very limited quantity in a few localities toward the southern shore. On the island toward the north, nearly every family has a garden in which potatoes, turnips, and cabbage are grown. It is interesting to see beautiful potato gardens, practically free from blight and totally free from the potato beetle, thus insuring an almost perfect foliage and a very high yield of tubers which are often of large size. These gardens are sometimes on slopes with furrows down between the rows through the black soil for drainage.

THE primary industry in Newfoundland is fishing, although the exploiting of the fir and spruce timber of the interior, for paper pulp, mine props, and building lath, has begun in recent years, and lately has reached considerable proportions in certain localities. Because of these conditions, the scanty population of

it is

very-

own.

ender

sum.

s not

es in

the

until

oera-

ed in

are

vem-

mers

e are

varm

veral

and

their

ondi-

acial

tural

very

k is

il is

peat.

has

be-

state

the

at is

in a

hern

the

gar-

and

sting

rac-

tally

s in-

and

are

dens

fur-

ough

exnber mine egun has s in hese n of the island is chiefly located in villages and hamlets close to the coast.

The cod is Newfoundland's chief output, although some other fish are caught in moderate quantities and lobster fishing is locally important. Whales were once abundant but are now seldom taken. Seals are still caught in numbers at the north where the skins are a necessary part of the winter clothing of the inhabitants. Sealskin boots, devoid of hair, are worn by both men and women along the Straits of Belle Isle.

THE most characteristic feature of all the villages is the flats for drying codfish. These are extensive slat or pole platforms elevated from 3 to 8 feet above the ground. On these the dressed fish are spread out to dry. The cod is now caught principally in net traps let down to the bottom of the moderately deep water, where the fish occur in schools. The older methods of trawling and jigging are still used, however. The trawler baits each of his many hooks; the jigger, on the other hand, catches his fish by jerking his unbaited hook until a fish is accidentally caught. Though this would seem a slow process, he is not long in hooking a fish when they are abundant.

The fish are caught in enormous quantities and sold by the "quintal" or hundred weight. They are salted and dried and shipped to distant parts of the world, much of the catch going to the Mediterranean region and to South America. When the fishing is good the fisherman makes a fairly comfortable living, but the codfish is fickle and often deserts this or that portion of the coast or may be generally scarce. The income of the fisherman is therefore very uncertain and he is often threatened with hardships and famine. The fishing population of Newfoundland is now almost entirely of British descent. The people are friendly, hospitable, and sincere, and we greatly enjoyed our stay among them.

After leaving the customs at Port au Basque, our trip on the New-

foundland railway to Curling was uneventful. Here we boarded the mail steamer, "Home," for the last lap of our journey, a distance of 150 miles along the northwest coast to our destination at Flower's Cove. The mail steamer makes one trip weekly through the summer months, stopping at the various Newfoundland ports and also those along the southern coast of Labrador as far as Battle Harbor. On its way it discharges and takes on mail, freight, and passengers, this being done chiefly by lightering by motor and row boats. as docks are few.

Communication in northern Newfoundland is almost solely by boat in the summer, either by mail steamers or by private motor boats of which each well-to-do fishman owns at least one. In the winter, it is entirely by dogsled or man-back, as horses, wagons, and sleighs are extremely rare. Roads are almost entirely unknown at the north, and the automobile is yet to make its appearance. North and south Newfoundland are very different in this respect. In southern Newfoundland, both roads and automobiles are found in limited numbers, although the dogsled is absent. Several paved roads have been constructed in southern Newfoundland near the city of St. John's.

WE MADE our headquarters for the summer with a fisherman's family in the village of Flower's This town is the shire town, or county seat, of the northern province of Newfoundland. From this point as a center, we explored the coast and land lying back of it for a distance of 100 miles along the Straits of Belle Isle and the Gulf of St. Lawrence. Most of the land explored consisted of limestone barrens and peat bog land, with here and there scanty tree growth. These barrens are only slightly above sea level and are vast horizontal stretches covered with small or large broken fragments of rock, often giving the appearance of crushed stone for the highway. Where poorly drained, the rock is covered with peat barrens

surrounding innumerable small lakes and pools. These peat barrens, or tundras, as the botanist calls them, are often miles in extent.

The explorations were done by mail boat, motor boat, and on foot, but travel was so slow that our full program for the summer could not be completed. We visited the table-lands along the coast toward the southern end of our area several times. It was necessary to pack in on man-back and camp for several days to work that area. Caribou and bear are found on these tablelands, but they did not honor us with their presence.

Flower's Cove was not far from the headquarters of the Grenfel Mission to the deep-sea fishermen, and we became acquainted with many doctors, nurses, and teachers connected with this mission. One of the Grenfel hospitals is located at Flower's Cove.

THE time for college to open was fast approaching, and other duties were beginning to demand attention, so early in September we reluctantly packed our baggage and our collecting outfits and began our homeward journey, this time, however, by the way of southwestern Labrador and the north shore of the St. Lawrence to Quebec. We returned with a feeling that the summer had been eminently successful. Not only had we secured 13,000 plant specimens to distribute to scientific institutions, but we had added 12% of new names to our previous list of the island's flora. Many of these newly discovered plants, a few of which were entirely new to science, showed remarkable peculiarities of distribution, some of them being found elsewhere only in the Rocky Mountains or in Europe.

There is yet much work to be done in Newfoundland before nature has yielded up all her secrets there, and we are all looking forward to the time when we may go again and continue the study of this most interesting island flora.







Through Our Wide Windows



The Cornell Countryman

Founded 1903

Incorporated 1914

One of the Agricultural College Magazines, Associated. Finances are controlled by an incorporated board of professional and business men of which J. B. Taylor is president. Published monthly from October to June. The subscription rate is a dollar a year; single copies fifteen cents; advertising rates on application.

			EiG	itoria	u st	ап				
A. V. TAI	T	-	w	-	-	-	-	-	-	Editor
A. L. MAS	ON		-			-		Man	agin	g Editor
H. L. CHA	PPEL	L -	-	-	-	-	-	Wo	men'	's Editor
A. W. GIB	SON		-	-		-	-	A	lumi	ni Editor
H. W	BEE	RS				T	. E.	LA :	MON	T
G. F.	BRIT	T				1	N. H	. WI	RIGI	IT
J. E	HRLIC	H				\mathbf{R}	. E.	ZAU	TNI	ER
			Bu	sines	s Sta	aff				
L. P. HAN	- 1			-				Busir	iess	Manager
C. A. DOY	LE		-		-		Ad	vertis	ing	Manager
G. W. BEL	DEN	-	-	-	-	-	Ci	rculat	tion	Manager
A. W. WIL	SON	-	-	-		Alu	mni /	Assist	ant	Manager
C. F.	BLE	WER						R. 0	CLA	PP
C. I.	BOW	MAN				V. C	LI	NDE	RMA	N

V. M. TYRRELL

Ithaca, New York

December, 1925

PROFESSOR Phillips's article on how bees behave in winter contains an object lesson from which all of us might well profit. He tells us that when the temperature drops below the point at which bees can perform their labor individually, they form a cluster to manufacture heat to keep them warm.

If human beings had more of this clustering instinct, perhaps we would be better off. When we see that we are not making a go of it individually, we would probably do well to cooperate with others to form a more efficient system, and to use to the best advantage our individual efforts for the benefit of the group.

Like the bees, we do well alone when the sunshine of prosperity beats warm upon us, and the clover fields of business just ooze with the honey of profits. But let the winter of bad times come, and it finds us unprepared to meet it, and unlike the bees, unwilling to cooperate to combat it.

The trouble with us is that we have an inborn sense of independence, which we are reluctant to give up, even though it is to our advantage to do

so. We want to live our lives in our own way, no matter if we succeed or fail. We are a little suspicious of our fellow men, and doubt their motives when they suggest cooperation.

Let us take a lesson from the bees. When necessity and good sense demand it, let us learn to cluster.

IS housekeeping a job for educated people? Must not the housekeeper give up her former work and aims and settle down to a life of drudgery?

That was the old idea, but today the woman looks upon housekeeping as a vocation with as much dignity and prestige as any other work, and is making a business of learning how to have better homes.

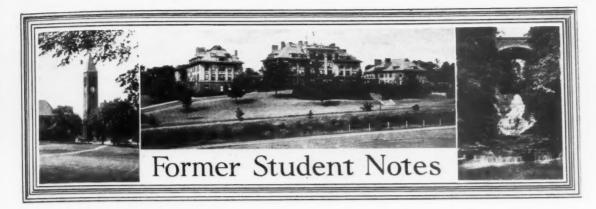
But why waste money and time on a college education if she intends to be only a housekeeper? Because a college course is essentially the best possible foundation for the vocation of home-making. It forms habits and associations which mean much in later life. It teaches her to use her mind, to meet problems squarely, to do her work systematically, and to develop good judgment.

The change from college days to practical life and to home-making should not require settling down. By continuing to investigate, to find new methods, to systematize her work, to look always for the reason for things, and to do them differently if the new way is better and easier, the so-called drudgery disappears, and she may find ample time for friendships and social life.

After all, college is not an institution separated, as many suppose, from home-making. Rather, it tends to establish a better home life, which may be of incalculable benefit, especially to the next generation.

THERE is beauty in the great open spaces, in the hills and trees and streams, but to one whose interests are agricultural, there is just as much beauty in the furrow-slice of this old earth's crust as in the other wonders of nature.

This ever-changing thing, the soil, holds for man at the same time both a challenge and a promise—the challenge of understanding its possibilities and intricacies, so that he may direct the mansoil partnership to success; and the promise of food and clothing and the building of a strong race of men.



'88

The superintendent of the Forsgate Farms at Jamesburg, N. J. is G. D. Brill.

'91

Jared Van Wagenen is one of our early graduates who is still in the farming game at Lawyersville, N. Y. He has a considerable reputation as a lecturer and writer and also is the president of the Schenectady County Farm Bureau.

'93

, no

Sus-

tives

eces-

n to

Must

vork

ooks

nuch

d is

etter

edu-

per?

pos-

ing.

nuch

l, to

nat-

life

ling

new

avs

fer-

S0-

find

ted.

r, it

nay

ext

the

ose

uch

ust

nan

ties

an-

of

ace

v?

A fine herd of Ayrshire cattle is owned by Morgan Myers at Barneville, N. Y. The herd is maintained on a farm of 140 acres.

'98

B. F. Copley modestly writes that he was surprised to see his name mentioned in our former student notes. He adds that he has been given the honor of holding down the mayor's chair in the city of Wichita, Kansas, for the coming year. He is one of the city commission-

ers. Mr. Copley is one of our early short course students in dairy and is at present engaged in the ice cream and dairy business in Wichita.

Henry C. Arnold Jr. is operating one of his own farms of about 150 acres. He has over three hundred acres besides, that which he rents on a share basis. His address is Holcomb, N. Y.

'01

The secretary of the Schoharie Farm Bureau is O. E. Williamson who lives at R. D. 2, Schoharie, N. Y. He is farming in the Schoharie valley.

'02
Elnathan G. Phillips is selling all kinds of insurance in Holcomb, New York.

'04

George A. Bell is doing some an hus work in the remount service of the U. S. War Department, at Sacramento, California. Mail will reach him addressed in care of this department. Before the war, in which he served as a captain in the remount service of the U. S. Army, he spent five years as a livestock and poultry farmer at Rome, New York. In 1919 he investigated livestock conditions

Standing L. to R.—J. W. Bowen '02; M. W. Enos '24; A. K. Strong '25; F. H. Glann '24; H. E. Luhrs '22; C. T. Hartman '22; H. A. Huschke '22. Kneeling L. to R.—W. E. Davis '14; H. I. Frederick '25; F. Kent Sp.; C. W. Nordgren '20; H. B. Davis '23; W. H. Hutchings '22; R. P. Hamilton '23.

One of the features of the annual convention of the salesmen of the Purina Mills, held at the Hotel Chase, St. Louis, Missouri, was the breakfast of the Cornell Purina Club. Fourteen of its nineteen members were present. Those who were absent are S. D. Wilkins '04, Ronald Colston '18, Forest Secor '11, C. D. Hewett '25, and V. V. Smyth Sp.

in Europe for the Federal Government.

'05

W. Robert Dunlop, "Guernsey Bob," former president of the Ag Association in '04-'05 and member of the COUNTRYMAN board, is a breeder and dealer in purebred Guernseys as

well as a farmer at Eldridge, New York.

'06

Charles W. Mann is a pomologist in the Bureau of Plant Industry, U. S. Department of Agriculture. He is in charge of the fruit transportation and storage investigation, with headquarters at 314 Bradbury Building, Los Angeles, California.

The man directly responsible for the poultry division of the large Fors-

gate Farms at Jamesburg, N. J. is Clarence A. Cornell.

'07

The past president of the Albany County Farm Bureau is Anson H. Rowe who is now farming at Feura Bush, N. Y. He is also acting as land bank appraiser for that district.

Ralph Day is farming with his brother at Canandaigua, N e w York.

Frank Thayer is operating a dairy farm at Frewsburg, New York, and according to

the reports which have drifted into Ithaca, he is really doing the job right.

'08

Charles R. Guernsey is a farmer living on R. D. 3, Schoharie, N. Y. He and his four sons are raising pure-bred Holsteins, sheep, bees, potatoes, and hay. There is also an orchard on the farm of considerable size.

10

James T. Barrett is a professor of plant pathology and an associate director of the University of California Graduate School of Tropical Agriculture and Citrus Experiment Station at Riverside, California.

De

wit

Wa

col

las

M

N C c t 2



THE year before he graduated, his father sold out his coffee business and retired.

But he wasn't the kind who could stay retired.

"Son" hadn't made up his mind what to do after graduation, so knowing how he liked flowers, Dad kind of concluded he would have a decision ready.

So he built this sassy little flower shop in one of the residential sections of Indianapolis.

Then he called us in to add the greenhouse, which he calls his "big glass show case"

Dropped in to see them not so long ago.

Say man, but there is just one of the nicest little gold mines I've bumped into in many a day.

A delightful business in every way, and growing every day.

How about it, don't you think your Dad would chip in on a proposition like that?

We'll give you all the facts you want, and then some. More and more college men are taking up this flower business

every year. It's fun and there's money in it — that's why.

"If interested, write to the Manager of our Service Department, 30 E. 42nd Street, New York City, who will give it his personal

Jord & Burnham 6.

Builders of Greenhouses and Conservatories

Eastern Factory Irvington, N. Y.

Western Factory Des Plaines, Ill.

Canadian Factory St. Catharines, Ont.

Irvington Cleveland Boston

New York Denver

Philadelphia Kansas City Montreal

Chicago St. Louis Greensboro

111

George B. Birkhahn writes that another future Cornellian arrived on Columbus Day. The name of the new arrival is Paul Donald. George is living at 11 Mills Avenue, Middletown, N. Y.

Will and Mabel Gill have been farming, just a few miles outside of Medina, New York, ever since concluding their special course here.

Their fifty acres of apples, pears and peaches are among the tidiest of little orchards in Orleans county. They are mighty proud of their fruit, especially peaches, of which they've raised two unusually fine samples, one of whom is Ruth, aged twelve, the other Barbara, nine. Lately they have been handling furs, which they hope will prove both an interesting and profitable side line.

Thomas Bradlee is director of the agricultural extension work of the University of Vermont. His address is 69 North Prospect Street, Burling. ton, Vermont.

James Cochrane is farming at Ripley, New York. His address is Box 177. Grapes are his specialty but he finds time to serve as chairman of the Farm Bureau in his community.

112

Alfred Atkinson who received his M.S. here in 1912 is now president of the Montana State College, at Bozeman, Montana.

Howard Henderson is with the Peter Henderson Seed Company, at 35 Cortland Street, New York City.

Claude Emmons is a consulting lubrication engineer for the Texas Oil Company. His address is White Hall Building, 17 Battery Place, New York

H. K. Crofoot of Moravia, and Florence Crofoot '25, who is a student here, and James Crofoot '27 a student in electrical engineering, were recently called to their home in Little Falls, New York, by the death of their father.

'13

Charles E. Allred, who received his M.S. in ag ec here at Cornell in 1913, is now a professor of agricultural economics and farm economics at the experiment station of the University of Tennessee, at Knoxville.

Charles M. Wigren is farming at Frewsburg and is chairman of Farm Bureau in the Frewsburg community.

James Smart is farming at Lyons, New York.

H. Errol Coffin is a landscape architect with his brother Kenneth Coffin, a graduate of the Cornell College of Architecture, in the firm of Coffin and Coffin. His business address is 522 Fifth Avenue, New York City.

John S. Dorman is one of the few '13 men who are still unattached. He is operating his father's fruit farm at Geneva, New York. He is to be congratulated on maintaining his single blessedness.

J. S. Brown is with S. S. Brown & Co. in the wholesale butter and egg business. His business address is 149 Reade Street, New York City. Incidentally but important, he is married and has a couple of youngsters.

John G. Whinery, who has been with the Guaranty Trust Company for the past six years, resigned on September 1, to become associated of the of the ddress urling.

, 1925

at Ripis Box but he of the y.

ed his esident ge, at

ne Petat 35 ty. ing lu-

as Oil e Hall v York , and

a stu-'27 a ering. me in death

ceived nell in griculomics e Uniille.

ing at Farm unity. Lyons, pe ar-

n Cofollege Coffin ess is ty. e few l. He

farm

to be

s sinwn & d egg is 149 Inci-

nany ed on eiated

arried

December, 1925

with J. G. White and Company at 37 Wall Street, New York City.

Francis C. Smith resigned on December 1 as county agent in Essex county, where he has been for the last four years, to join the staff of the Equitable Life Insurance Company in New York City.

Fayette H. Branch is a farm management demonstrator for the Massachusetts Ag College, at Amherst.

Charles Gifford is farming with his brother at Phelps, New York.

William A. "Bill" Hutchinson is manager of the State bulk station of the Standard Oil Company of Indiana. His headquarters are in Bay City, Michigan. Address mail in care of the company.

Harry D. Bauder is operating the Ashland Stock Farm and is one of the directors of the Farmers' and Mechanics' Bank at Fort Plains, New York. His address is Fort Plains.

G. S. Rose is covering western New York as a salesman for the Creamery Package Company of Chicago, Illinois. He is married and has two daughters. He is at home at 284 Thurston Road, Rochester, New York. During the past summer he took a short course in ice cream composition at Penn State.

Mr. and Mrs. Charles H. Reader of 615 Crown Street, Brooklyn, have a son, Miles Meyer, born on June 28.

Andrew Travis is in the lumber and feed business, with the Straight Milling Company, at Canisteo, New York.

Arlyn W. Coffin is secretary of the Chamber of Commerce, Hoboken, New Jersey. His headquarters are at the corner of Newark Street and Lackawanna Plaza.

Harold M. Stanley is farming at Skaneateles, New York.

16

Milton B. Porter is running the Beechwood Farm at R. D. 24, Ransomville, N. Y.

William L. Webster is managing the A. A. Post farm at Stanley, New York. He has one hundred acres in

Orley G. Bowen is a county agent at New Brunswick, New Jersey. His address is 335 George Street.

Leslie Brown, former basketball captain '15-'16, is with the Shepherd Crane and Hoist Company, at Montour Falls, New York.

Top Dressing Talk No. 1

Scrapping worn-out knowledge

YEARS ago this statement-

"Ammonia must be transformed to nitrate form before it can be used as plant food"

was generally accepted. We know better now. Research has shown that practically all crops feed directly on nitrogen in ammonia form as well. Nitrification may occur but it is not essential. This statement, too,

"Nitrate nitrogen acts more quickly than ammonia nitrogen"

is still often heard, but here again research has shown that young plants take up the ammonia nitrogen as rapidly as the nitrate nitrogen, if not more so.

Arcadian Sulphate of Ammonia furnishes nitrogen in ammonia form, which is directly and immediately available as plant food for the growing crop. There is no better or quicker acting nitrogenous fertilizer, especially for fruit and vegetables, where shipping quality and uniformity count for so much, than Arcadian Sulphate of Ammonia.

ARCADIAN Sulphate of Ammonia

THE BARRETT COMPANY, AGRICULTURAL DEPARTMENT

New York, N. Y. Berkeley, Cal.

Atlanta, Georgia

Medina, Ohio

Mail the coupon for further information

			t., New York, N.	
Please	send me you	r free bulletin	s on Sulphate of	f Ammoni
in relation	n to			
	****************			***************************************

James C. Corwith was elected chairman of the nominating committee of the New York State Farm Bureau Federation at the recent conference in Syracuse.

Dean Lighfoote is farming at Stanley, New York.

E. E. Honey, formerly an instructor in plant pathology at Cornell, was married to Amy Trowbridge this summer. Mr. Honey is teaching in Washington State College at Pullman, Wash.

M. P. "Shine" Moon is now at the University of Missouri, Columbia, where he has complete charge of the public health laboratory. He reports an unusual custom at that university. No one is allowed on the grass, not even the professors. Every offender receives a good paddling.

Rodolphus Kent, who has been a

A Christmas Gift for all the year

COULD anything better express the spirit of Christmas than a gift that brings comfort, convenience and happiness every day of the year?

That's what a Colt Light plant will bring to your home.

Think of the difference good light will make to everyone. To be able to read in any room without hugging a feeble circle of light; and to feel that the eyes of every member of the family are insured against the weakness that is inevitable in badly lighted homes.

Work in the barn and farm yard is less tedious and more quickly finished under the brightness of Colt Light. The Colt hot plate and the Colt iron make cooking and ironing easier.

Colt Light is safe. You need no technical knowledge to operate the Colt Light plant, which requires only refilling with carbide two or three times a year. Union Carbide for use in the big 200-lb. capacity generator is sold direct to the consumer at factory prices. One of the Union Carbide Sales Company's warehouses is located near you. Union Carbide is always uniform. World's best quality. Highest gas yield. It is always packed in blueand-gray drums.

No Christmas gift will bring as much to you and every member of your family for years to come as Colt Light. And its cost, installed and working, is less than that of the cheapest automobile. Write our nearest office today if you want to greet your family and friends at Christmas with Colt Light.

Write to the nearest branch for the new free book "Daylight 24 Hours a Day"

J. B. COLT COMPANY

No other proposition offers as great an opportunity for the farm-trained man as selling the Colt Light Plant. Selling experience is unnecessary, for we will train you to make a success of this work. If you are over 25 years old and drive your own automobile write our nearest office for full particulars.



New York 30 E. 42d St. Rochester, N.Y. . . 31 Exchange St. Chicago, Ill. . 1001 Monadnock Block Kansas City, Mo., 716 N.Y. Life Bldg. Chattanooga, Tenn., 6th & Market Sts. San Francisco, Cal., 8th & Brannan Sts.

"COLT LIGHT IS SUNLIGHT"

produce buyer for the Great Atlantic and Pacific Tea Company at Presque Isle, Me., for the past six years, has been transferred to the headquarters at Jersey City, N. J. He and his wife are now living at 7619 Colonial Road, Brooklyn. They have a daughter, Nancy Elizabeth, born on June 25 last.

"Fred" Schlichter is at present coaching the football and baseball

teams of the Yonkers High School. We understand he was married last November. Perhaps the success of his last year's football team was partly due to this increase of interest.

Waldo B. Cookingham is teaching agriculture in the Phelps High School and is operating a poultry farm on the side. His address is Phelps, N. Y.

'17

Kenneth T. Allan is teaching agri-

culture and is principal of the junior high school at Plainsfield, Vermont He is married and has one child, Catherine Ellen.

Boyd Blodgett is farming at Fredonia, N. Y. He is married and has three children. He keeps up his connection with the College through the Farm Bureau. He is chairman in the Fredonia community.

Harold Regnault has purchased a farm of 130 acres at La Grangeville, N. Y. He is raising dairy and poultry products.

L. F. "Buddy" Whipple is running the home farm at Lebannon, New Hampshire.

F. K. Smith, who has been teaching school at Clinton, Oklahoma, is now taking graduate work in the entomology department at Cornell. His address is Forest Home, Ithaca, N. Y.

Seth Parsons owns his farm at Sharon Springs, N. Y. He is breeding Holstein cattle and raising alfalfa hay and White Leghorns. He has two children.

Joseph Robson is manager of the Hall Cooperative Association. He packs fruit and sells G. L. F. goods. His address is Hall, New York.

'18

J. A. Reynolds is teaching agriculture in Hammondsport, New York. He has a son, John Peabody, born in late October.

Lester Cooper is a flour and feed salesman at 207 Clinton Avenue, Cortland, New York. He is living on his home farm and managing it on the side.

A century old farm, known as The Hynd's Farm, is being worked by Homer Neville. The place is located at Hyndsville, N. Y.

Ray F. Steve is selling insurance and real estate in Pittsford, New York, as a permanent business. Temporarily, he is located in Buffalo, selling transportation to Florida.

R. H. Taylor is running a dairy of twenty-five Holsteins on his father's farm at Watertown, New York. He sells his milk to the Y. W. C. A. in Watertown, for which his herd constitutes the sole source of milk.

E. Herbert Smith was elected to a position of distinction at the recent conference of the New York State Farm Bureau Federation in Syracuse. He is now a member of the board of directors.

Harvey C. Aldridge is operating his own farm at Victor, New York, on

Proud of

Our "A's"-

Who is not rightfully proud of the "A's" that may appear

on monthly or semester report

Manufacturers, too, are just-

Dairymen in ever-increasing

numbers in all parts of this

country unreservedly give an

ly proud of the "A's" given

them by exacting buyers.

"A" rating to

he junior Vermont. ne child,

g at Freand has his conough the an in the

er, 1925

chased a ingeville. nd poul-

running on, New

teaching , is now entomol His ad-N. Y. arm at s breedg alfal-

of the n. He goods. k.

He has

agricul-York. born in

nd feed venue. ving on g it on

as The red by located urance

o, sellairy of ather's c. He

A. in

d to a recent State acuse.

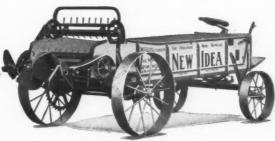
ng his k, on

, New Tem-

d con-

ard of

The Cornell Countryman



Model 8, NEW IDEA Spreader

FOR THE BIG BUSINESS OF BETTER FARMING

New Idea Farm Equipment offers the best possible investment.
It is thoroughly efficient—and can be depended upon
for a long life of Trouble-Free Service.

THE NEW IDEA SPREADER COMPANY COLDWATER, OHIO

The NEW IDEA Transplanter

A scientifically built machine for all kinds of transplanting, including To-bacco, Truck crops. Nursery stock, smal Fruits, Bulbs, etc. Write for information.



because of its efficiency, dependability and economy.

Surfaces washed with Wyandotte are greaselessly clean, sweet smelling, and yet this distinctive cleanliness is achieved with no harm or injury to dairy utensils. Wyandotte cleanliness is easily secured at a reasonable

Wyandotte Cleans Clean

Indian in circle



in every package

THE J. B. FORD COMPANY Sole Mnfrs.

Wyandotte

Mich.

OF THE COST OF DAIRYING

IS THE COST OF FEED!

WHEN you start dairying for yourself the feed bill will be an economic worry bigger than all others combined. A good measure of your success will depend upon cutting down this item to the profitable minimum. And with that in mind you'll be wanting the feed that furnishes the cheapest digestible, milk-making protein, in other words the most protein, of the right kind, per dollar.

That's why you'll be buying

40% Protein

Diamond Corn Gluten Meal

just as hundreds of dairymen, who are much concerned with feed costs, are buying it now.

In Every Live Dealer's Stock And Every Good Dairy Ration

Corn Products Refining Co. Chicago New York

Also Mfrs. Buffalo Corn Gluten Feed





"About ninety per cent of the stuff written about 'The Variety of Proteins' is pure bunk. The feeder who has corn, oats, silage, alfalfa, clover and pea hays needs only one other feed—Corn Gluten Feed."

So declares one of our biggest authorities on feeding. He says that variety is a very simple thing—easy to understand by any farmer who knows his animals.

The purpose of variety is to make the ration more palatable. If there is any other virtue in variety, you get it in your alfalfa, clover and other leguminous roughage.

Feed your corn, oats, silage and clover hay—with Com Gluten Feed. You will then make meat or milk at the lowest cost per 100 lbs. In proper combination you get the variety your animals want and the protein they need.

Beef cattle make cheaper gains on Com Gluten Feed than on grain alone. Dairy cows almost double their yield with Corn Gluten Feed in their ration. This practical feed lot experience can not be changed by theories.

The price of corn does not change its analysis. Sell some of your corn and buy Corn Gluten Feed to supply the protein lacking in your grain. Tell us what you are feeding and we will suggest the right ration for you.

We want to help you get more out of your home grown feeds. Write us for advice on feeding. Get your supply of Com Gluten Feed from your dealer or from any manufacturer.

Associated Corn Products Manufacturers

Feed Research Department Hugh G. Van Pelt, Director 208 South La Salle St., Chicago, Ill.

No. 21



APOLLO-KETSTONE Galvanized Sheets not only last longest for Roofing and Siding, but are specially adapted for Culverts, Tanks, Silos, Spouting, and all exposed sheet metal work. KEYSTONE Copper Steel Roofing Tin Plates also give unequaled service. Sold by leading metal merchants. Look for the Keystone Included in brands. Write for our latest booklets.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.

which he has a good herd of Holsteins,

Mary Blodgett is state supervisor of home economics education, at the Colorado Agricultural College, Fort Collins, Colorado.

'19

Frank App, who received his Ph.D. at Cornell in 1919, is now director of organization of the Federated Fruit and Vegetable Growers Inc., at 90 West Street, New York City.

Harold G. Soper is a very successful cabbage and fruit grower at R. D. 3, Geneva, New York.

Carl H. Schroeder is in charge of the poultry research and service department for the Larrow Milling Company at Detroit, Mich.

Howard Blair is farming at Macedon, New York.

Clarence Barnum is supervising advanced registry cow testing in New York state. His address is c/o H. H. Wing, New York State College of Agriculture, Ithaca, N. Y.

Julius Parsons is working with his father on the home farm, "Parsondale," at Sharon Springs, N. Y.

T. E. Loftus is operating a retail grocery store in Binghamton, New York. His address is 131 Schubert Street.

'20

Myron B. Bloy is conducting a retail flower business in Detroit. He is using some rather unique advertising material with good results. He opens his mail at 8901 E. Jefferson Ave., Detroit, Michigan.

It is with profound regret that we announce the recent loss of Rodney W. Pease, county agent in Ontario county. Infantile paralysis claimed the life of his six-year-old daughter during September.

A. H. Robertson is acting as secretary of the New York State Branch of the Society of American Bacteriologists. He was at Cornell November 7, for the annual fall meeting. His address is Geneva, N. Y.

Dr. W. H. Dye was a visitor in Ithaca during November. After receiving his doctor's degree in plant pathology, he entered the commercial field, and is now with the Niagara Sprayer Company of Middleport, N. Y., in the capacity of plant pathologist.

Orson Robson is a very successful fruit and cabbage grower at Hall, N. Y., as well as being president of the Ontario County Farm Bureau. He has made some cabbage selections 1925

Hol.

visor t the

Fort

Ph.D.

ector

ated

., at

cess

R. D.

e of

deling

ace-

sing

in

c/o

ege

his

on-

tail

ew

ert

re-

is

ng

ns

e.,

we

ey

ed

er

ch

ri-

n-

g.

in

e-

nt

al

a

V.

)-

11

in cooperation with Professor C. H. Myers, of the plant breeding department, which have turned out to be very worth while.

'21

As a Cheney is working with his father on the home farm at Bemus Point, New York. He was married last spring but we haven't found out what the fair lady's name is. We wish he wouldn't keep it from us any longer.

Howard Warm, although farming at Frewsburg, New York, has so far disproved the farm management theory that a farmer must be married. He lives with his parents. The Farm Bureau claims a good portion of his time as he is chairman in the Ivory community.

Ruth A. Lee was married to Reverend E. M. Parrott on October 22 and is now living at the Iogues Farm, Lake George, N. Y.

"Ted" Buckley, a former "C" crew man, is married and living at Cambridge, N. Y. He is a partner in a coal and lumber concern in that place.

Lansing Vedder is farming on the Troy Road, Schenectady, N. Y. He is also vice-president of the Schenectady County Farm Bureau.

John Dickenson is head of a department in the Eastern States Farmers' Exchange, at 122 Chestnut St., Springfield, Mass.

One of the recent visitors to the campus was J. A. McConnell, who is now manager of the feed department of the Cooperative G. L. F. Exchange at Peoria, Illinois.

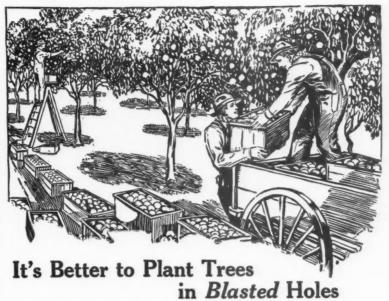
'22

Lee M. Downer is farming at Forestville, New York, and is chairman of the Farm Bureau in that community. He is living with his parents at present and is not married although his days are numbered; we hear that he is engaged.

Mr. and Mrs. E. B. Pratt announce the arrival of Norma Talbot on November 15, 1925. Mrs. Pratt was formerly Frances W. Talbot '22.

Mr. and Mrs. John Beeg announce the marriage of their daughter, Anne Marie, to Bayard H. Staplin on Nov. 11 at Syracuse, N. Y. After December 15 they will be at home at 345 Arlington St., Watertown, N. Y.

Merrill H. Moore, who has been located at Hale Orchards, Seymour, Conn., is now employed on a ranch known as the Leffingwell Rancho at East Whittier, California.



TREE-PLANTING with dynamite is the approved method among up-to-date farmers, ranchers and orchardists.

Better results are obtained when dynamite is used to prepare tree-holes for these reasons:

makes trees grow faster due to enlarged and better feeding area; improves drainage conditions by eliminating stagnant water;

creates a water-absorbing subsoil and makes the trees proof against drought; brings about a year's earlier return on the investment in new orchards, and increases and improves future yields;

makes re-planting possible on old orchard locations without waiting to rest the land;

helps old trees to bear better fruit and live longer.

Du Pont dynamite is uniform in quality and dependable in action. The du Pont oval trade mark on cartridge and case makes identification certain.

You should have among your text books a copy of the "Farmers' Handbook of Explosives"—a 110-page, profusely illustrated book telling about the use of explosives on the farm. This book will help you in your studies. Send for your free copy today.

E. I. DU PONT DE NEMOURS & CO., INC.

EQUITABLE BLDG., NEW YORK, N. Y.



R. W. Freyschmidt went to Bradentown, Florida, in 1922, where he established an ice cream business. The first year he leased a plant, but the following year he built one of his own. He writes that he is married and has a business representing an investment of \$20,000. Evidently R. W. is on the high road to success and happiness.

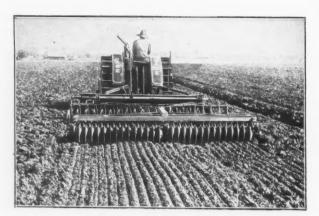
After farming it for two years at Tully, Robert Clark accepted a position as assistant county agent in St. Lawrence county. His appointment was recently announced as county agent for Essex county, where he will assume his new duties on December first at Westport.

Martha Parrott is teaching and helping with the agricultural work in the Thessolonica Agricultural and Industrial Institute, Salonica, Greece.

23

Dorothy Sullivan, now Mrs. Vernon

pri



A Bigger, Better Farm

IN the crooked stick era, an acre of plowing took at least three or four days. The sulky plow cut it down to a day. Case tractor equipment makes an hour's work of it.

Case tractors, bought to save hired help or to do more timely work, are surprising hundreds of owners who find themselves able to farm more land and make more money.

This is due to the great capacity for work and sturdy dependability that is built into Case tractors. Every farmer who uses a Case has this opportunity for more profit.

Write for a copy of the new "Modern Tractor Farming" which tells how the tractor can be used to increase your earning capacity.

J. I. Case Threshing Machine Company Incorporated Established 1842

Dept. M75

Racin

Established 1842 Wisconsin

Case Farm Tractors, Steel Threshers, Harvester Threshers, Silo Fillers, Baling Presses, Steam Engines, Road Machinery, Grand Detour Plows and Disk Harrows.

G. Caldwell, is living at 144 Commonwealth Avenue, Buffalo, N. Y. She has a fifteen months old baby boy.

"Burt" Leffingwell, who was extension instructor in animal husbandry last year, is now helping his brother run a farm at Ashley Falls, Mass. A poultry plant is connected with the

A son was born on October 23 to Mr. and Mrs. Philip Wakeley. Mrs. Wakeley was Alice C. Carlson. Mr. Wakeley is connected with the U. S. Forest Service and is stationed at Bogalusa, La.

Donald B. Whitson is managing a feed store at Afton, N. Y., for the G. L. F. Exchange, Inc.

Milton T. Lewis is an instructor in plant breeding at Pennsylvania State College and lives at the Alpha Zeta Lodge, State College, Pa.

Dorothy Brennan spent the summer

traveling in California. Letters addressed to Rutherford, N. Y., will reach her.

Sihon W. Baker is now on the Bonalevo Farms which his father has recently purchased. The farm is at Batavia, N. Y., and consists of more than 600 acres with over 50 acres of bearing orchards. It is stocked with over 125 head of pure-bred Holsteins producing certified milk for Rochester, Syracuse, and Buffalo markets. Besides the milk business the farm is producing apples, cherries, pears, and hay.

Walter Dann is with the New Haven Gas and Electric Company in New Haven, Conn.

224

John C. Hurlburt is manager of the Kraft Cheese factory at Milledgeville, Illinois.

George R. Kreisel has been working in New York City with the Pacific Egg Producers. He writes that his job is a cross between accounting and statistical work. His address is 113 Chester Avenue, Bloomfield, N. J. Just this evening we learned that George had been taken sick while driving his car last week end, Nov. 14, on a trip to Goshen, N. Y., to see "Mac" Makuen. We understand that he was taken to a local hospital for treatment. Any further information we obtain will be passed on in the January issue.

G. S. "Tim" Butts is taking the place of H. A. Stevenson, who in the agricultural text book department of the McMillan Publishing Company in New York City. "Tim" is supervisor of the home study courses given by the College. He is also taking graduate work.

Raymond L. Taylor was married on September 5 at Jamaica, N. Y., to Miss Francena R. Meyer, daughter of Mr. and Mrs. Henry V. C. Meyer of that place.

Ruth E. Miller is teaching homemaking in the High School at Phelps, N. Y.

Marjorie M. Dean was married in Battincare, Md., on June 24 to Harold F. Perry. They are now living at Boonville, N. Y.

"Joe" Boland is employed by the Agricultural School at Canton, N. Y.

Marian R. Salisbury is teaching homemaking in the high school at Trumansburg, N. Y., and living at the Hotel Tremaine there.

In a letter from Charles W. Skeele we read: "I am now with the Massa-(Continued on page 102) 1925

s ad-

Bon-

t Ba-

more

es of

with

teins

cheskets.

m is

and

New

r of

dge-

ork-

cific

his

and

113

J.

that

hile

Vov.

for tion the

the

of in sor by

adied

Y., ter yer

neps,

arng

Y.

at

Measuring the Demand for Milk in New York City

(Continued from page 85)

the last twenty changes in retail milk prices is a trifle over one per cent for each one cent change. In other words, an advance of one cent a quart, which is quite an appreciable percentage change, has about the same effect on the consumption of milk as a decrease in temperature of fifteen degrees on a summer day. Within reasonable limits, therefore, the retail price of milk can be advanced without seriously curtailing consumption, whenever production conditions in the country justify an advance to the producers. In other words, there is little elasticity in the demand for milk, and low prices to producers are much more likely to result from dairymen producing too much milk than from the city decreasing its consumption. Conversely, high prices can be paid to producers whenever there is a shortage of milk in the country.



The State College of Agriculture offers students

Technical Training Actual Experience Cultural Advantages

Whether living to learn or learning to live—Cornell—can help

Registration for the second term begins February 5, 1926. A catalog of information will be sent on request to the secretary of the college at Ithaca, New York.

XMAS GIFTS

SCARFS

HANDKERCHIEFS

NECKTIES

COLLARS

SHEEP-LINED COATS

TIM CAPS

GARTERS

GLOVES

SHIRTS

BELTS

CUFF LINKS

HATS

SWEATERS

UNDERWEAR

SLEEVE BANDS

TOQUES

HOSIERY

WIND-BREAKERS

STUDS

CAPS

BELT BUCKLES

SUITS

OVERCOATS

TOP COATS

NOW IS THE TIME TO MAKE YOUR SELECTION

We Mail Your Gifts in Secure Packages

BEN MINTZ, Inc.

Where Cornellians Have Traded Since 1876

THE HILL DRUG STORE

The Favorite Box of Chocolates For Years Has Been WHITMAN'S SAMPLER

We have an attractive stock of Whitman's and Apollo Chocolates

C. W. DANIELS, Pharmacist 238 College Avenue 1925

ROUND UP CLUB JUDGES TOWNSENDVILLE DEBS

Chicken Dinner a la Bucket Brigade Is Gastronomic Success

While on a sheep inspection trip this fall, the members of an hus 13 were treated to a chicken dinner in the Townsendville, N. Y., church and were invited to re-turn when the resi-dents would have

would have their eligible young ladies "on review."

The members of the course reported such likely prospects that the meeting, on November 2, of the Round Up club was arranged to be held in the church. As a means of comparing the ability of the eligibles in the culinary ort a banquet was also arranged at which Professor C. T. Conklin, secretary of the Avrshire Breeders' Association of Amer-ica, and Dr. C. E. Ladd, director of extension. were the guests of honor. Pro-fessor "Bob" Hinman

ably acted as toastmaster for the gathering of sixty-five faculty mem-

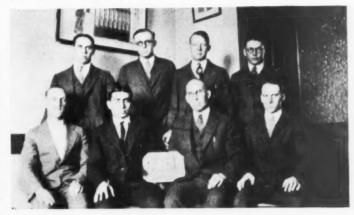
bers and students.

The comparing of the culinary ability was preceded by singing of the alma mater, after which "Little Bill" Bishopp '26 said grace. The courses of the banquet were served a la bucket brigade and the great speed Taylor '27 time to lead the singing of Cornell songs between the various stages of the filling-up process. In return for Professor Hinman's explanation as to why the meeting was held in Townsendville someone yelled "bring on the women." During the feeding period several members indulged in private contests which are usually considered tabooed in "high hat" circles

Livestock History Presented

After a short speech by President "Happy" Sadd '26, Professor Hinman introduced the farm and home bureau agents of Seneca County. They were followed by Professor Conklin who pronounced the feed a "gastronomic success." Professor Conklin gave an interesting survey of the livestock history of the country, stating that the greatest ment has been since the Civil War, which was followed by an increase in the nation's transportation facilities. He made three significant observa-tions in the course of his speech. First, due to economic conditions the dairy cattle have the edge on general

livestock enterprises in the east be-cause they return more human food per unit of food consumed; second, the tendency of the nation to consume young animals has revolutionzed the meat production of the country; and third, there is a demand for the highly specialized animal in preference to the so-called dual purpose



The 1925 judging team of the an hus department. Upper row, L. to R.

"Bob" Mitchell '26; "Happy" Sadd '26; "Red" Mereness '26; E. Van
Voris '26. Seated L. to R.—"Bill" Bishopp '26; "Gil" Gulbenkian '26;

Professor C. Allen, Coach; Lyle Arnold '27

Dr. C. E. Ladd presented the members of the livestock judging team with the College shingle. Professor "Hy" Wing and several other men prominent in New York agriculture, spoke to the gathering.

SHORTHORN CLASS SMALLER: COALITION CLUB ORGANIZED

Registration of short course students this fall showed a marked decrease over registration in previous years according to figures in the office of the secretary of the Ag College. There are 130 students, about onefifth of whom are former shorthorns. As in previous years the records show that a majority of the students are interested in the course in general agriculture. There are five Indians and several foreign students enrolled.

Shorthorn activities began on November 7 with a general meeting in Roberts assembly, where a coalition of the former short course clubs was effected. This results in the elimination of the six clubs which have existed in former years, and the sub-stitution of one club for all short horns. At the organization meeting temporary officers were elected, and a program of songs and talks was concluded with the "passing of the ice cream cones." The club meets once each week,

STUDENTS SUBMIT PLAYS FOR ANNUAL KERMIS AWARDS

Eastman Stage Aspirants Competer For Place in Semi-Finals

Initial steps in the preparation of the annual student contributions to Week program the Farmers' been taken in the closing of the Ker-

mis play competition and the first elimina-tion of Eastman Stage

aspirants.
"Al" Van Schoick '27, acting manager of Kermis, this year explains that while in the past it has been customary to present only present only student written plays, this year it has been decided to enter these plays in competition with the state-wide rural life play contest conducted by the department of rural social organization in conjunction with state farmers organiza-Approximatetions. ly forty plays have been submitted for the \$200 prize offered in the state wide con-

Students in the Colleges of Agriculture and Home Economics were eligible to enter plays in the Kermis contest, in which a \$75 prize is offered for the best play and a \$25 prize for the second best. The awarding of the prizes rests with a faculty committee composed of Dr. R. P. Sibley, Dr. E. A. Bates, Professors L. A. Felton, B. L. Melvin, J. E. Rice and R. Roberts. who will judge all plays submitted. All manuscripts were due in the office of Acting-dean

Cornelius Betten by noon of Dec. 1. Speaking Squad Cut

The preliminary weeding of Eastman Stage speakers occurred on November 30 in Roberts assembly, where twelve contestants were se lected to compete in the semi-final contest to be held December 14.

Speeches for the first elimination were of three minutes' duration and there was no restriction as to subjects. All speeches in the semi-finals are to be on agricultural topics and must be confined to fifteen min-Students selected to compete utes. in the final contest, which is an annual Farmers' Week event, and for which there is a first prize of \$100, will be given individual coaching by Professor G. A. Everett and G. E. Peabody of extension.

Decem

SPEAKERS SWAP STORIES AT FORESTER'S MEETING

Tree Tales and Hot Dogs Swallowed by Embryo Lumberjacks

"The foreman of a gang of Texas rangers had stationed two of the group at the far end of a large hollow tree which stretched across a stream to check up on the steers they were driving through the tree. The rangers checked 381 steers short and an investigation proved that the lost animals had strayed off in a hollow branch of the tree."

It was that which we heard a man,

It was that which we heard a man, whom afterward proved to be Mr. C. W. Pedis, State Forester for the State Conservation Commission, tell when we happened to drop in on the forestry meeting on the evening of November 4. With such an auspicious introduction to the gathering we decided to remain and heard Mr. Pedis and Colonel J. C. Nicholls of the R. O. T. C. swap stories (?) of outdoor life until the eats committee filled them (and us) with hot dogs until the increased diameters of the members at the waistline crowded us for room until we were pushed out the door.

Before being thus removed we gathered from Paul Logan '26, president of the club, the information that the next meeting would be in the form of a report by Professor A. B. Recknagel on the Utilization Conference which the Empire State Wood Users Association held during the month at Syracuse.

STATE BANKER'S ASSOCIATION COMMITTEE MEETS IN ITHACA

The agricultural committee of the New York State Bankers' Association met on November 7 in Ithaca to consider ways in which the Association can be helpful to New York farmers. The meeting was arranged by Professor W. I. Myers of ag ec. Among the speakers were Director of Extension C. E. Ladd, Professors G. F. Warren and V. B. Hart of farm management, and Paul Young, junior club leader. Plans were formulated for helpful cooperation by the Bankers' Association in increasing credit facilities of the banks to farmers, in broadening the scope of the junior club work, and in distributing the farm account books prepared by the College of Agriculture.

COLLEGE DELEGATES MEET

The annual meeting of the representatives of the forty-eight landgrant colleges was held in Chicago, November 17-19 inclusive. The purpose of the conference was to discuss problems of administration of the extension, research, and resident instruction phases of agriculture, home economics, and engineering. The representatives from Cornell were Dr. R. W. Thatcher and Dr. C. E. Ladd from the Ag College, Professor Flora Rose and Professor Martha Van Rensselaer from domecon, and Dean D. S. Kimball from engineering.

'ZAT SO!

(From the COUNTRYMAN, Dec., 1905)

Mr. Henry Ford, a native of Michigan, has invented a farm automobile that he claims will cost only \$400, and will do the work of four horses, and can still be transformed into a stationary engine. Mr. Ford is a practical farmer, which gives us reason to believe that the invention may prove useful.

AG AND HOME EC COLLEGES ISSUE EIGHT BULLETINS

Among the new bulletins issued recently is one by the College of Home Economics on home sewing and another on health and personal appearance. The College of Agriculture has issued six other bulletins, one on hill-unit selection of potatoes, another on the manufacture of cottage and other soft cheeses in the home, the methods of testing and determining the relative values of milk, the storage scald of apples, the feeding of work horses, and bearded iris. Any of these may be obtained by writing to the publication office of the College of Agriculture.

MAX SCHLING LOAN FUND GIVEN TO FLORICULTURE

A new loan fund to aid worthy students in floriculture has recently been established through the generosity of Max Schling, a prominent retail florist in New York City. The many persons who visit New York to study Mr. Schling's methods, are required to pay a fee of \$50 for one week's observations. These fees Mr. Schling has agreed to turn over to Cornell as the "Max Schling Loan Fund." Its administration rests with the floriculture fraternity, Pi Alpha Xi, of which Mr. Schling is an honorary member.

PROF. MYERS ATTENDS MEET OF AGRONOMY SOCIETY

Professor C. H. Myers of the plant breeding department attended a meeting of the American Agronomy Society at Chicago on November 16 and 17. Professor Myers was appointed by the president of the Society to represent it in the organization committee for the International Congress of Plant Scientists, which is to be held in Ithaca, August 16 to 23. The meeting at Chicago was held to arrange a program for this

MOVIE "CENSORED"

"Home Demonstration Work in the United States," a film produced under the Rockefeller Foundation was reviewed by members of the domecon faculty. The film will be presented in the Scandinavian and Mediterranean countries as educational propaganda.

FEDERATED HOME BUREAUS HOLD SIXTH ANNUAL MEET

Syracuse Gathering Listens to Profs at Three-day Convention

The Federated Home Bureaus of New York state convened at Syracuse on November 10 to 12. This was the sixth annual meeting of the Federation. A large delegation of farmers also attended the tenth annual meeting of the State Farm Bureau Federation at the same time.

Professor Anna Botsford Comstock, emeritus, addressed the gathering and discussed the efforts of Honolulu to bring peace to their part of the Pacific. Professor Comstock has a world-wide reputation in nature study and is well known as a traveler. Miss Martha Van Rensselaer, director of the College of Home Economics, Dr. C. E. Ladd, director of extension, and Professor Bristow Adams also represented the Colleges at the conference.

Owen D. Young, president of the General Electric Company, discussed at one of the sessions the practical possibilities of electricity on the farm. H. C. McKenzie spoke on remedies for the present tax situation.

The farmers were entertained by the rural women on the evening of November 10 in honor of the tenth birthday of the farm bureau organization. A new home bureau motion picture was shown for the first time, its reels showing home improvement in this and other states in the past twenty-five years.

CERTIFIED POTATO SEED TESTED IN SUNNY SOUTH

Seed samples are now being received at the College from members of the New York Seed Improvement Cooperative Association whose potatoes were among the ten thousand acres that were certified in this state last year. These samples are sent to Florida where they are planted in trial plots which are inspected early in the spring by Dr. Karl H. Fernow of plant pathology. In this way the quality of the seed is determined before planting time. This knowledge is of threefold value, according to Dr. Fernow, in that the grower is enabled to plant the best strains; he has opportunity to purchase if his own seed is unsatisfactory and if he has seed to sell the guarantee is an added recommendation of his stock.

COUNTY SOILS DESCRIBED

According to Professor H. O. Buckman of agronomy a bulletin dealing with the crops and soils of Tompkins county is to be published by the College of Agriculture at some time during the winter, the subject matter of which will be based on the work in soil surveying. A technical government survey of Tompkins county, written by Professor Buckman and Mr. Howe is already available for distribution. Professor Buckman states that the bulletin to be published will be of a practical nature.

STRAND

DECEMBER 3-5

PRETTY LADIES

and

5 ACTS OF VAUDEVILLE

DECEMBER 6-9

CHARLES CHAPLIN

in

THE GOLD RUSH

COMING

"ROMOLA"

The Wisteria Garden

Opposite Strand

"Particular Food for Particular People"

, 18 JS

"Peacock Alley" is
"The Greenwich Village of Ithaca"

Regular lunch noon and night - 50 cents

Ideal for lunches, dinners, large or small

36 36 38

A la carte at all hours

JE JE JE

Open after Theatres

H. V. Miles, 08, Manager

Eddy Street

at

420 Eddy St.

Next to Campus Gate

We have a store full of nothing but Christmas goods.

We do not ask you to buy but just to come in and see our display.

.

Open evenings

Gateway Supply Shop

3-3 3-3 3-3

R. C. Mandeville

422 Eddy Street

Christmas is Coming

We're here **now** and we have many things that would make excellent gifts. Opera glasses or binoculars, for instance, would be appreciated. And they last a lifetime.

Wilson & Burchard

220 East State Street

"We grind our own lenses"

Sphinx Head

J. E. Frazer M. C. Howard

Heb-Sa

Professor A. B. Recknagel

R. M. Chase P. W. Hunter

F. B. MacKenzie

T. A. Parish J. G. Weir

Helios

A. M. Boyce H. J. Christensen L. B. Foreman

S. Hart W. S. Middaugh

F. C. Rich

C. W. Sadd L. H. Steele

W. Sullivan, Jr.

R. Taylor W. Willcox

PROFS WRITE NEW BOOKS;

DAIRY TEXT IS RE-EDITED

Practical Poultry Management by Professors James E. Rice and H. E. Botsford of the poultry department has been issued by John Wiley and Sons, Inc. of New York. Professor G. W. Herrick of the entomology department has also published a book entitled Injurious Insects while extension Professor R. A. Felton of rural social organization has written A

Christian in the Countryside. The former is printed by Henry Holt Company and the latter by the Methodist Book Concern, both of New York.

A new and revised edition of The

Technical Control of Dairy Products, by Timothy Mojonnier and Professor H. C. Troy, of the dairy department will be out in December.

RADIO RADIATES ROUND A RUSTIC RURAL POPULACE

Beginning December 14, and continuing every second Monday in the month, the extension department of month, the extension department of the Ag College is to broadcast from WGY, Schenectady, N. Y., a series of lectures on marketing. The speakers are as follows: from the department of farm management, Professor V. B. Hart will talk this month on "How to Take a Farm Inventory;" Professor W. I. Myers speaks in January about "Some Principles of Successful Cooperation"

ful Cooperation."

Professor M. P. Rasmussen will

"Party Market." Professor M. P. Rasmussen will talk in February on "Potato Marketing;" Professor H. E. Ross of the dairy department lectures in March on "Factors Affecting the Demand for Milk," and in April Professor B. Spencer of farm management will discuss "Factors Affecting the Supply of Milk."

The poultry department is preparing a course which will be broadcast-

ing a course which will be broadcast-ed by the announcer of WGY, as is the College of Home Economics, which is sending articles on home life to be read into the microphone on certain afternoons of the week.

Phi Kappa Phi

Dr. R. P. Sibley W. E. Benning H. M. Bull

V. L. Case M. L. Dake J. E. Frazer

J. E. Frazer
V. H. Jonas
J. Marshall, Jr.
A. L. Mason
R. K. Mitchell

C. I. Sayles

A. Stone A. V. Taft

Omicron Nu

B. E. Boyer C. B. Culver J. A. Gardiner

A. R. Jonas

A. R. Johas
J. B. Nundy
E. E. Parsons
M. L. P. Pierstaff
R. C. Pratt
H. B. Vrooman

MYERS TAKING CENSUS OF N. Y. COOPERATIVES

A census of all farmer-owned business organizations, including those now extinct, is being undertaken by Professor W. I. Myers of ag ec. He plans thereby to make a study of the causes of success and failure. fessor Myers requests anyone knowing of a cooperative in the state which has not received his questionnaire to communicate with him.

Former Student Notes

(Continued from page 96) chusetts Mutual Life Insurance Com-

Here is a list of Cornell Ag men who are Farm Bureau agents in New York State.

M. C. Hammond '19-Binghamton

O. H. Chapin '18-Salamanca K. E. Paine '23-Jamestown

R. H. Hewitt '13-Elmira

L. E. Allen '21-Plattsburgh

H. L. Vaughn '16-Cortland

A. L. Shepherd '09-Poughkeepsie

R. F. Fricke '17-70 W. Chippewa St.,

Buffalo R. Clark '22-Westport

H. C. Morse '13-Gloversville

L. S. Kibby '22-Catskill

C. G. Bradt '22-Walton

J. C. Otis '12-Lowville

W. C. Stokoe '13-Mt. Morris

W. L. Norman '23-Wampsville

E. D. Merrill '21-

25 Exchange St., Rochester

C. M. Austin '13-Fonda

H. C. Odell '22-Mineola

pany at Syracuse, N. Y., and at the same time running my farm at Clockville, N. Y. Mrs. Skeele (Eva Springstead A. B. '25) is teaching school at Clockville."

Mr. and Mrs. Henry Arnold wish to announce the birth of a son, George Henry, on November 1, 1925, at Rushville, New York. "Hank" is at present managing his father's large general and dairy farm at Rushville.

"Howie" J. Pfeiffer was down to Ithaca recently to attend one of the football games with a party of friends. "Howie" is the flower gardener on the Schoellkopf estate at Lakeview, N. Y.

Arthur H. Brokaw is teaching vocational agriculture in the high school at Owego, N. Y., and lives at 377 Main Street.

125

Ellen W. Wing is assisting Professor A. H. Wright, of the zoology department, and living at home, 121 Kelvin Place, Ithaca.

A. M. Fennell has a position as manager of the horticultural grounds and greenhouses at the University of Florida.

A. W. "Bill" Dunlap is in charge

of things of a gastronomical nature as steward of the Flamingo Hotel, at Miami Beach, Florida.

- L. A. Muckle '16-Lockport
- G. W. Bush '11-Court House, Utica
- D. D. Ward '12-Court House, Syracuse
- R. W. Pease '20-Canandaigua
- C. C. Davis '22-Middletown
- R. G. Palmer '16-Albion F. B. Morris '22-Oswego
- H. P. Beals '19-Cooperstown J. D. King '12-Court House,
- Troy T. C. Murray '12-Spring Valley
- S. R. Farley '18—Canton W. G. Meal '23—Schenectady
- R. F. Pollard '15-Cobleskill
- L. O. Bond '21-Watkins
- L. C. Anderson '22-Romulus
- W. S. Stemfle '20-Bath
- E. S. Foster '25-Riverhead
- N. H. Eason '23-Owego
- E. N. Moot '22-Ithaca
- F. M. Wigsten '22-Kingston
- C. M. Slack '16-Ft. Edward
- L. H. Woodward '16-Warsaw
- C. B. Raymond '13-Penn Yan

1925

hose hose He the

ture l, at

ey

BOOL'S

for

Christmas Gifts
Furniture, Rugs
Pictures
Cedar Chests
Coxwell Chairs
Windsor Chairs
Spinnet Desks
Smokers' Stands
Brass Candlesticks
Wood Candlesticks

126-132 East State Street



When in need of

PRINTING

Look up

The Atkinson Press

Opposite Treman, King & Co. 106 East State Street

We can supply all your needs Telephone 2623



Sooner or later you will wear Brown & Brown clothes and those who start later will wish it had been sooner

Brown & Brown Clothes are Custom Built Ready-to-wear

Exclusive Fabrics and Distinctive Models
They cost no more

Knox and Stetson Hats Wilson Bros. Exclusive Haberdashery

Brown & Brown

142 East State Street

SMARTEST APPAREL FOR DAY OR NIGHT

De

YE EDITOR'S "WE"-

We are merely echoing the sentiment of the students interested in animal husbandry when we put ourselves on record as favoring the petition which has been circulating about the campus. The petition asks for a general introductory livestock course to include judging of the important types of farm animals.

A fellow in our entomology class, when asked what the pupal stadium is, replied without hesitation, "Why, that's the student cheering section."

We find it difficult to wholeheartedly agree with the statement we heard a professor recently make. He inferred the "A" man in college would be the "A" man after graduation no matter what business he entered. While this may be so for a large group, we are inclined to think that the deviation from the average is so great (due to work and outside activities while in college) that the statement holds but little significance.

A plan has been discussed whereby the several college livestock shows in the east and middle west similar to ours during Farmers' Week might be given an intercollegiate flavor. A prominent livestock judge would be selected by a representative committee to judge the shows on a percentage based on the fitting and showing. The college having the highest percent would win a trophy.

Elsewhere on these pages we notice a long list of elections to hononary societies upon the campus this fall. If election means that the initiate is set upon a pedestal as a reward for past performances, then the societies do more harm than good for they retard further achievement—the very thing they should encourage.

A farm boy comes to college; He's bashful, gawky, and shy; He plans to spend with caution, And lay his pennies by.

He's going back, he says, to farm, To the girl he left at home; To co-eds, sprees, and dances His fancy ne'er will roam.

His first formal is disastrous,— His suspenders didn't hold; Then skill with years develops And he gets the stuff down cold.

He soon finds out that wild life
Is a science sure enough;
It conflicts with work and study,
But he doesn't want that stuff.

As a senior he's decided Country life is too sedate; The girl and farm wait patiently— They must—for what a wait!!

Just because domecon was changed into the College of Home Economics which makes the girls ineligible for Eastman stage is no reason to believe that they will stop talking.

Far be it from us to belittle the winsomeness of New York maidens, but our desire to further the veritable rennaissance which domecon has but recently embarked upon, prompts us to urge all of them, even though they may not feel in need of such counsel, to send for bulletin E 119, the first beauty discourse issued by the College of Home Economics.

I salt away a book a day on this infernal hill; my mind is crammed, with knowledge jammed, though oft against my will. If every word I've said and heard in any single day were put to press, 'twould make, I guess, a volume for display. If all the dope from lectures got on what is what and what is not were put with wisdom that I grab between my daily naps in lab, and every word on every quiz, and every problem worked—Gee Whiz! The book would grow to healthy size if I am right in my surmise. We might include what mental food I glean from book and text, and what from chalk and what from talk, and what from thinking next. And last the facts I pick and sort in writing up a long report. These are samples, just examples of study on the campus; the things profs dish (against our wish), with which they feed and tamp us.

And so you see the fact remains that every day I gain in brains enough to write a volume on, a volume that 'twould pay to con. My time is thus not idly spent; I'm glad I was to college sent.

"TUXEDOS OF PERFECTION"

For years we have satisfied the tastes of College men in Formal Evening wear

WE ALWAYS HAVE WHAT YOU WANT

Men's Furnishings-Shoes and Student Needs

We rent Tuxedos, too

MORRIS THE TAILOR

407 Eddy Street

WE FIT YOU FORMALLY

, 1925 tle the

ritable as but pts us

th they ounsel, ie first e Col-

on this mmed, gh oft 'd I've y were

guess, e dope at and visdom

aps in quiz,
—Gee

y surnental ct, and

And

writ-

on the gainst ed and

a vol-My n glad



Flowers for Xmas

The Solution for the puzzled gift giver "She" will appreciate Flowers

We guarantee prompt delivery by wire, mail or cablegram

-anywhere-anytime-(ORDER EARLY)

The Bool Floral Co., Inc.

215 E. State St.

Flower Fone 2758

Georgia's Restaurant

Home made Pastry

Regular meals served from 12-2 and 5-7

A A A

Short orders at all hours

N N N

410 College Avenue

It's Not What a Store Tells You, It's What It Gives You That Counts

W E are in business to make a living—not a killing. We guarantee everything we sell to be as represented—to render you value received or refund your money. Cheap clothing is expensive at any price—our clothes are reasonable at their highest price BECAUSE they wear well and give unbounded satisfaction.

MICHAELS-STERN

"VALUE - FIRST" CLOTHES

If You Have Never Worn Them, Try Them-

BUTTRICK & FRAWLEY, Inc.

"And If You Have, Need We Say More?"

Dece

ANNUAL HARRIER RACE WON BY AGRICULTURAL ATHLETES

Ag Soccer Men Win Championship by Defeating Law

Ag College came back into prominence in intercollege athletics this fall by capturing two championships in the month of November.

Finishing the full quota of five runners among the first ten harriers to complete the course, the Ag cross country team carried off the intercollege championship in the annual run held November 21. Leading his running mate, H. H. Fuller '28, by only 20 seconds, J. D. Pond '28 of Agriculture broke the tape in 18 minutes and 53 seconds, considered excellent time for the three and one-eighth mile course.

Another one of his teammates, P. B. Catlin '28, crossed the line in third position, only two seconds back of Fuller. The remaining two runners representing Ag, M. J. Firey '28 and E. S. Tibbitts '27, finished in eighth and ninth positions. All of these runners will receive College shingles. Arts, Architecture, and M. E. finished in the order given. There were 66 men starting in the run.

Booters Boot Ball

Ag booters kicked through with the championship of the intercollege soccer league this year. On November 9 the team defeated Law for the University championship after a hard fought game which continued almost until darkness prohibited further play. The score of the game was 1 to 0. Previously, the booters defeated M. E. for the leadership of league I. A total of 5 games were won out of the six played.

won out of the six played.

The following men will receive shingles for their work. R. V. Lange '26, C. R. Taylor '26, A. W. Crosby '26, J. G. Weir '26, R. K. Danker '26, J. E. Frazer '26, R. L. Zentgraf '27, S. Abraham '27, H. P. Breitfelt '27, W. S. Salisbury '28, F. Fish '28, P. Purnasri '29, and F. H. C. Liu, Grad.

STUDENTS HOLD HUSKING BEE

On the evening of October 29 an unusual social event in the form of an old-fashioned husking-bee was held out in "Daddy" Tailby's barn, under the auspices of "Art" Pratt '26 and Olive Knight '26. The affair was unique among the social events of Cornell in that there were no stags present. Each of the twenty-four fellows who were present had an incentive to find a red ear right by his side. The committee in charge objected to possible stags "cutting in" every time they found a privilege giving rosy auditory organ of the

EXTENSION MEN GATHER

On November 2 the second extension specialists' conference of the year was held in Caldwell Hall. The feature of the meeting was a talk by Dr. G. F. Warren, entitled Farmers of 1940. In this speech he emphasized

the idea that we should look at farming on the basis of the future rather than at the past five years. As the reason why he feels that agriculture is on the upward trend, he said that unless we have an increase in the number of people on farms, an increased demand for food because of a growing population will bring on the farm prosperity.

At the third meeting, on November 28, B. H. Crocheron '08, state director of extension in California, who was on a trip through the east, addressed the conference. He outlined the extension methods they have worked out in California.

KAMPUS KOLLOQUIALS

There have been received from 100 people, living in 23 states and 10 foreign countries, 1,475 volumes for the apiculture library being assembled by Professor E. F. Phillips.

Professors L. A. Maynard and "Bob" Himman of an hus attended the International Livestock Show at Chicago. At a meeting of the American Society of Animal Production there Professor Maynard gave a paper and led a discussion on the mineral requirements of animals.

Doctor C. E. Ladd spoke on November 3 at a meeting of the Syracuse Kiwanis Club, entertaining thirty-five junior potato club members and their dads.

Doctor and Mrs. G. F. Warren entertained the graduate students and members of the ag ec department with a real old-fashioned get-acouainted party on October ninth at their Forest Home residence.

The campus has been graced by two new faces during the past month. A. W. Gibson. COUNTRYMAN alumni editor, announces the birth of Sally Ann on November 3. Professor R. A. Felton of rural social organization, reports that Robert Paul. arrived November 9. has not made the football team yet but has joined the cheering squad.

Professor E. S. Savage gave a talk at Troy, Pennsylvania. November 12, on "Open Formulas. What They Are and What They Mean." He was at St. Lawrence University, Canton, N. Y., November 19 and 20, where he spoke on "Dairy Feeding Practice."

During National Honey Week, November 15 to 21. R. B. Willson of the apiculture department gave radio talks on bees and beekeeping from several broadcasting stations in the state.

Dr D. S. Welsh, instructor in plant nathology, was married on September twenty-fourth to Miss Graham of Guelph, Ontario, Canada.

NEW ATTRACTIONS OFFERED AT DECEMBER BIRD SHOW

Poultry Certification Association Meets at a Dinner

With an increase of over 100 per cent over the entries of 1922, when 718 birds were entered, the fourth annual New York State Production Poultry Show held at the College, Dec. 1-3, was a success.

The members of the department made special efforts to obtain large attendances at the show and offered, besides the birds on exhibition, several additional attractions to visitors. The educational program included talks on selection and judging of birds and the 4-H club's judging contest. On the second day the meeting of the New York State Cooperative Poultry Certification Association was held, with a dinner. There was also a poultry exchange each day at which poultrymen were given a chance to buy and sell stock.

B. A. SUPERVISES PUBLICITY; ACCEPTS BUCKEYE INVITE

Professor Bristow Adams was in Syracuse, November 9 to 12, supervising the publicity for the sixth annual meeting of the State Federation of Home Bureaus. He was also chairman of the publicity committee for the Ithaca Community Chest. With the assistance of Dave Cook '24, vice-chairman of the committee, "B. A." directed all the advertising and general newspaper publicity in connection with the campaign. It has also been announced that he has accepted the invitation to judge the Ohio state newspapers at their annual convention in February, 1926. This will make the fourth time that Professor Adams has been judge for the Buckeye Publishers' Association.

PROF. EVERETT ENTERTAINS WITH DIALECTAL READINGS

The extension department held a party in domecon on November 28, the function of which was to bring together the old and the newer members of the department. Professor G. A. Everett read a number of French-Canadian poems in his inimitable style. His audience blithely washed them down with doughnuts and cider which rumor holds to have been mighty good going down. Prof Myers and his quartet furnished a number of taking selections. The meeting broke up to the tune of something akin to the Virginia Reel, while various couples gyrated across the floor in a dizzying intricateness of old fashioned steps.

PROF PLANS LEAVE

Professor G. W. Herrick of entomology plans to leave with his family next February for Europe where he will utilize his sabbatic leave in visiting entomological laboratories and entomologists in France, Italy, Switzerland, and possibly Germany and England. 1925

HOW

per when ourth ction lege,

ment

arge ered, sevtors. uded

of conneet-

tion

day n a

; ITE

in perantion

airfor ith

ted ate envill

ek-

GS

Holiday Engraving and Embossing

Your orders for engraved personal Christmas Cards and embossed gift stationery with line die crest or seal should be placed at once. The new designs are ready.

We have gift boxes of high grade stationery, ranging in price from 75 cents to \$22.00. You can get a long monogram die or line die for \$1.00, \$1.50 or \$2.00.

The Corner Bookstore

Downtown-109 North Tioga Street

Lynden Lunch

408 Eddy Street

Home Cooking a Specialty



Regular Meals

P. A. McAllister '15

Christmas Gifts

Jewelry and Novelties

Let Us be Your Jeweler

SHOP EARLY

Bert Patten The Ieweler



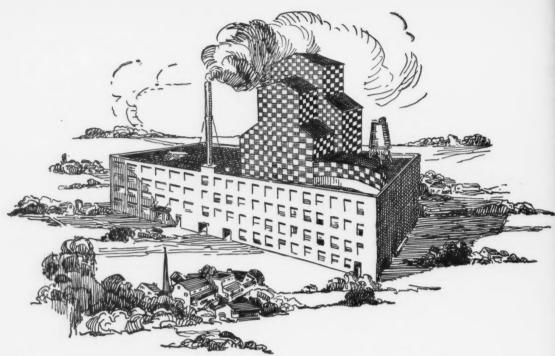
Official Photographers Cornell 1926

++0++

Winter Course Students Special Rates on Groups

0

306 East State St. ITHACA 220 W. 42nd St. NEW YORK



Suppose-

SUPPOSE Purina Mills were set down overnight in your own home town. Suppose every feeder should suddenly find

-mighty machines to relieve him of the hard work of mixing his own ration

-grain buyers who know where and when to buy

—a staff of chemists to test each ingredient for quality and again test the finished product to see that it is balanced according to formula

—a service organization to show him how to get the most from his home grown grains and roughage.

Wouldn't it be wonderful if this service cost him only a little more than the price of the ingredients? Wonderful? No more wonderful than the service Purina already gives your own home town.

There is a great Purina Mill near every town. The Purina dealer and field man in your town bring Purina service to your back door.

Next time you visit St. Louis, East St. Louis, Buffalo, Fort Worth, Kansas City, Nashville, or Minneapolis, drop in and see how Purina is doing for the feeder exactly what he would do for himself if he had a mill in his backyard.

PURINA MILLS, St. Louis, Missouri







Freedom and Control

WITHOUT some freedom, life is forever stunted. Restrict the growth and nourishment of any plant too much, and see what happens. And human enterprise is but another kind of plant—it must be nourished. It must be free to grow.

This does not mean that we must let our fields run wild—there must be law and order. The electric light and power industry is no exception to this rule. With public regulation of rates and standards of electric service, the industry is effectively controlled, and its future lies in the hands of the people.

Encouragement is necessary if an industry is to grow—a return upon the money spent to build it, sufficient to encourage the furnishing of money for further building. Because this has been recognized by the public regulators, new capital has been obtainable as needed, enabling the industry, through the use of improved equipment, to produce electricity at a lower cost.

The result has been a reduction in the price paid for electric service by the public during a period when the general cost of living has increased more than seventy per cent.

Both freedom and control are possible in the wise regulation of a public service industry.

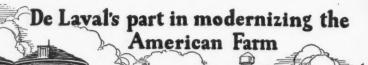
To extend greater benefits of electricity to agriculture is the problem now being studied by fifteen state committees, cooperating with the national committee on the Relation of Electricity to Agriculture. The Committee on the Relation of Electricity to Agriculture is com-

posed of economists and engineers representing the U. S. Depts. of Agriculture, Commerce, and the Interior, Amer. Farm Bureau Federation, National Grange, Amer. Society of Agricultural Engineers, Farm Lighting Mfg. Ass'n, and the National Electric Light Association.

If you are interested in this work write for a booklet describing it.

NATIONAL ELECTRIC LIGHT ASSOCIATION

29 West 39th Street, New York, N. Y.



From the smallest farm with a few cows ~ to the largest modern dairy

DE LAVAL first gave the world the centrifugal cream separator—which is now more widely used than any other and has done much to make the dairy industry the largest and most profitable branch of agriculture.

Now the De Laval Milker is also performing a great service for dairymen. It removes the drudgery of hand milking, saves time and labor, does better milking, and is a great success in every way.

Whether you have 5 or 500 cows or more to milk, there is a De Laval Outfit exactly suited for your needs and purse. More than 25,000 De Laval Milkers in use prove that they soon pay for themselves in sav-

ing time and labor, and increasing the quantity and quality of the milk.

A De Laval Milker will please both you and your cows, and your only regret will be that you didn't get one sooner. Sold on easy terms.

De Laval Milker Outfits \$175.00 and up

Slightly higher on Pacific Coast and in Western Canada

THE DE LAVAL SEPARATOR COMPANY

New York 165 Broadway Chicago 600 Jackson Blvd.

San Francisco 61 Beale St.

De Laval MILKERS

The Atkinson Press, Ithaca, N. Y.